

WATER MANAGEMENT SYNTHESIS II

CID/AID-DAN-4127-C-00-2086-00

QUARTERLY REPORT

January 1, 1985 to March 31, 1985

BEST AVAILABLE COPY

WATER MANAGEMENT SYNTHESIS II,
CID/AID-DAN-4127-C-00-2086-00:

2ND QUARTERLY REPORT,
January 1, 1985 - March 31, 1985

Submitted by:
The Consortium for
International Development

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Water Management Synthesis II Project

Quarterly Report Covering Period January 1, 1985 - March 31, 1985

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WATER MANAGEMENT SYNTHESIS II PROJECT
QUARTERLY REPORT COVERING PERIOD JANUARY 1, 1985 - MARCH 31, 1985

I. INTRODUCTION

A. General

This report summarizes the activities of the Water Management Synthesis II Project for the second quarter of FY85, covering the period January 1, 1985 through March 31, 1985. This report includes information relative to current activities, roster summary and finished activities as well as university highlights and a review of committee work.

The central purpose of WMS II is to develop and disseminate (in AID-assisted countries) more efficient water management technologies and practices to increase agricultural production and rural equity. The WMS II program is a joint project of S&T/AGR, S&T/MD, and the Asia Bureau of AID. These offices contribute funds and participate in the development, approval, and execution of project activities. The Consortium for International Development (CID) is the Prime Contractor for WMS II. Cornell University, Utah State University, and Colorado State University, through the Consortium for International Development, share the lead university responsibilities for the Water Management Synthesis II Project.

During this reporting period, Mr. Eric Vimmerstedt of the Corporate Secretary/Treasurer's Office has been assigned to the project to review financial management procedures and formally initiate the close-out of completed activities. Mr. Vimmerstedt is also assisting in the coordination of project activities.

B. A Summary of Significant Project Accomplishments

At the end of this reporting period (31 March, 1985) half of the time allocated for the Water Management Synthesis II Project elapsed. AID, EPD and the lead universities' personnel spent considerable effort during this quarter reviewing past accomplishments and problems, and planning for the effective use of the 2½ years remaining in the project contract. Too little time was available for this effort because the day to day work on the project (assembling field teams, handling other personnel matters, completing arrangements which will enable field teams to function effectively in host countries, completing reports and dealing with the seemingly endless administrative details) comprises a

full-time job for nearly everyone involved with the project. However, because of collaborative efforts between AID, the lead universities and the EPD's office, significant progress has been made towards ensuring effective use of the 2½ years remaining in the project contract. Unfortunately, some important tasks which must be tackled have been largely neglected and will have to receive greater attention in the future. The general accomplishments are presented in abbreviated form below, and these are followed by a summary of problems which must receive greater attention in the future.

1. The most significant accomplishment of this quarter has been the continuation of the successful efforts by the lead universities to place effective teams in the field. The following attest to a continuation of good work done by WMS II personnel in developing countries:

- a. The development of a PID (which will lead to a PP) under difficult conditions in El Salvador,
- b. completion of a well received DA Workshop and a well developed and accepted PP in Nepal,
- c. a comprehensive evaluation of a major AID Water Management project in Egypt,
- d. a collaborative seminar in Sri Lanka with IIMI, and
- e. the continuation of long-term efforts in Peru, Sri Lanka and India.

2. Final revisions of the FY85 Workplan were completed, and the Workplan was approved by AID.

3. CID prepared a draft of the WMS II Policy and Procedures Manual required in the Prime Contract. This manual should help to clarify and facilitate project communications on a number of operational concerns.

4. An agreement between AID and WMS II was reached which calls for the development of a single and flexible workplan for the final two fiscal years of the project. Clarifications which were agreed upon concerning the procedures for approving scopes of work and the authorization of expenditures on activities will make it easier to develop a workplan for the final two years of the project. A two year workplan will also increase the likelihood of accomplishing project objectives.

5. Discussions were initiated with the Africa Bureau of AID which should lead to increased WMS II activities in Africa. Project representatives also participated in a tripartite conference in AID/W on Land Tenure, Irrigation and River Basin Development in Africa. Participation was based on analyses by USU and CSU and will help to provide a foundation for increased WMS II activities in Africa. Such should also provide the opportunity to clarify and apply in a different environment lessons learned during the first half of the project.

6. Initial steps were taken to transfer responsibility for financial analysis and reporting to the EPD Office at CID/Tucson. In the process, the objective will be to develop a more flexible and effective financial reporting system. This objective will be achieved during the third quarter of FY85.

7. Communication within the project has been a major problem. Work has begun on developing an electronic mail linkage within the project, and this effort will be completed during the third quarter. In addition, steps have been taken to increase the use of the computer as a means of communication amongst the universities and the EPD Office. This effort will probably not be operational until the end of this fiscal year. By the end of this fiscal year, it is expected that sufficient progress will be made on the development of a computerized roster which will serve as a basis for an adequate professional roster.

C. A Summary of the Financial Status of the Project

A prerequisite for developing the final two year workplan is the development of information on the financial status of the project. As the result of work begun under B-6 above, we are able to report some progress in this matter.

The following table summarizes the current estimate of the overall financial status of the project. At the present time, the table is not complete with regard to expenditures broken down by core and buy-ins. This information will be developed prior to the next quarterly report. The financial data in the table suggests that the expenditures for the remainder of the project will have to place relatively more emphasis on buy-in activities.

WMS II FINANCIAL SUMMARY

as of
31 March, 1985

	<u>TOTAL DOLLARS</u>	<u>PROJECT/CORE DOLLARS</u>	<u>MISSION/BUY-INS DOLLARS</u>
Contract Ceiling 30 Sept., 1982	Approx. 19,645,933	Approx. 14,345,933	Approx. 5,300,000
Obligated to CID thru Contract Amendment #11	11,886,612	9,411,493	2,457,119
Un-obligated Contract Funds	7,759,321	4,934,440	2,824,881

Expenditures:

1. Closed-Out Activities	1,832,870
2. Prior Year Workplan Activities (not closed-out)	3,949,520
3. 1985 Workplan Activities (not closed-out)	<u>2,411,575</u>
4. Total Expenditures	8,193,965*
<hr/>	
5. Contract Ceiling Not Expended	11,451,968
6. Obligated Funds Not Expended	3,692,647

* Average expenditure per quarter - 819,397

The table directly below indicates the rate of expenditure for the last two quarters and the average quarterly expenditures for the first 2½ years of the project. If these figures are used to estimate expenditures for the final two quarters of the current fiscal year, the total expenditures as of 30 September, 1985 should increase from 8,193,965 (as of 31 March, 1985) to between 10,000,000 to 11,000,000. This would leave approximately \$8 to \$9 million for the last two years of the project. As noted previously, a relatively higher portion of the expenditures would have to be on buy-in activities than was the case during the first 2½ years of the project. These figures are preliminary and more precise estimates will be made in the near future.

WMS II Rate of Quarterly Expenditures

	<u>Prior FY Workplan Activities</u>	<u>Current FY Workplan Activities</u>	<u>Total for Quarter</u>
Current Quarter 1/1/85 - 3/31/85	86,890	959,473	1,046,363
Prior Quarter 10/1/84 - 12/31/84	760,718	200,648	961,366
Average Quarterly Expenditures for first 10 quarters			819,397

II. STATUS OF PROGRAMMED ACTIVITIES

The activities of the WMS II originate from three sources: (1) Mission initiated technical assistance and training; (2) University initiated special studies and training programs; and (3) AID/Washington initiated activities. The following listed activities were requests received by the WMS II Project Management from the beginning of the project up to and including March 31, 1985. Activities are categorized according to lead university as well as country.

The terms listed below are used to indicate activity status:

- Preliminary - denotes a request that requires further clarification (scope of work and/or dates are incomplete or are missing) before it can become a formal request.
- Formal - denotes a request for which all major details have been clarified and formal addition to the Workplan has been requested through the Overall Administration Office.
- Approved - denotes an activity that has been approved by the CPMT and AID/Washington and added to the Workplan through a request of the Overall Administration Office as of March 31, 1985.
- Initiated - denotes an approved activity that has been initiated and is currently ongoing.
- Finished - denotes an activity for which all technical responsibilities, including report writing, have been fulfilled.
- Completed - denotes an activity for which all technical and fiscal responsibilities have been fulfilled as of March 31, 1985.
- Pending - denotes a non-approved request for which addition to the Workplan has not been sought and/or approved even though clarification of major details has been obtained.
- Postponed - denotes an approved activity to be carried out in the following fiscal year. Reasons for postponement may be lack of host country approval, inability to identify personnel, scheduling conflicts, etc. The budget of such an activity shall be removed from the current fiscal year Workplan and included in an appendix to the one in which the work is to be done and expenditures made. The monies shall not be reallocated and reapproval will not be necessary for one fiscal year.

- Dropped - denotes a non-approved request dropped from further consideration.
- Cancelled - denotes an approved, yet uninitiated activity deleted from the Workplan and dropped from further consideration in the near future.
- Terminated - denotes an activity that has been initiated (expenditures charged against it), but then for some reason the decision is made to stop and further work. A new budget covering incurred expenses shall be submitted through the Overall Administration Office to AID/Washington and the status considered the same as completed.

The source of each activity is indicated by the following designations:

- UNIV - University initiated
- USAID - Mission initiated
- AID/WASH - AID Washington initiated

Colorado State University Activities FY 83 (3-31-85)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Bangladesh	TA-Curricula Dev. (BAU)	1-03-030-82	Completed	USAID
	TA-Consultant, Legal	1-03-029-82	Completed	USAID
	TA-Scope of Work	1-02-006-82	Completed	USAID
	T-DA Workshop	2-02-007-82	Completed	USAID
India	TT-Watercourse Hdbks.	2-13-025-82	Completed	USAID
	TA-Water Mgmt & Trng.	1-02-020-82a	Completed	USAID
	T-Meas. for Sys. Mgmt.	2-07-026-82	Completed	USAID
	TA-Evans Proj. Prep.	1-02-033-83	Completed	USAID
	TA-Clyma's TDY	1-02-035-83	Completed	USAID
	DA Workshop Planning	1-02-044-83	Completed	
	Development of Solutions	1-02-024-82	Completed	
Indonesia	TA-Oad's TDY	1-02-030-83	Completed	USAID
Pakistan	TA-WM (CWM) Meeting	1-02-029-83b	Completed	USAID
	TA-Clyma's TDY	1-02-031-83	Completed	USAID
Sri Lanka	T-DA Workshop	2-02-028-83	Completed	USAID
	WID-DA Workshop	2-02-034-83	Completed	
Worldwide	TT-Brochures;Newsltrs, Pub.	2-12-018-83	Completed	Univ
	TT-Survey&Str.for Trng.	2-09-019-83	Completed	Univ
	TT-Videotape Modules	2-03-021-83	Completed	Univ
	TT-Computer Applications	2-10-022-83	Completed	Univ
	T-Wkshop(Tech.& Soc.)	2-04-023-83	Completed	Univ
	SS-Comm. for Tech. Tran.	3-04-024-83	Completed	Univ
	SS-Irig. Systems Mgmt.	3-04-025-83	Completed	Univ
	TA-Water Resource Econ.	1-02-042-83	Completed	AID/Wash
	CSU Administration	0-02-998-83	Completed	

Colorado State University Activities FY 84 (3-31-85)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Africa	TR--Africa Workshop	2-14-113-84	Completed	Univ.
Dominican Rep.	TA--Reconnaissance Team	1-02-110-84	Completed	
India	TA-Rajasthan MIP-Cad.	1-02-026-84	Cancelled	USAID
	TR-DA Workshop M.P.	2-02-031-84	Completed	USAID
	Curriculum Development	1-02-094-84	Completed	
Indonesia	TA-Long Term WM Spec.	1-01-008-84	Cancelled	USAID
	TR-DA Workshop	2-04-010-84	Terminated	USAID
Nepal	TR-DA Workshop Planning	2-02-003-84	Completed	USAID
Pakistan	TR-Sr. Off. Workshop	2-04-019-84	Initiated	USAID
	TA-Command Water Mgmt	1-02-114-84	Initiated	USAID
Sri Lanka	TR-DA Workshop	2-02-006-84	Cancelled	USAID
	TA-WM Central Support	1-02-022-84	Finished	USAID
	TA-Design Team	1-02-102-84	Initiated	USAID
	TA-Long-Term WM Spec.	1-01-109-84	Initiated	USAID
Worldwide	TR-Professional Visitors & Networking	2-11-039-84	Initiated	Univ.
	TR-DA Trainers Workshop	2-08-040-84	Initiated	Univ.
	TT-Instructor's Guide DA	2-13-042-84	Initiated	Univ.
	TT-Brochures, Newsletter, Pubs.	2-12-044-84	Initiated	Univ.
	SS-Interfacing Farm & Mgmt System	3-04-045-84	Terminated	Univ.
	TT-ICID Senior Off. Wkshop	2-04-048-84	Completed	USAID
	TT-Survey & Strategy	2-09-049-84	Initiated	Univ.
	TR-Workshop; Soc & Tech.	2-04-050-84	Completed	Univ.
	TT-Microcomputers	2-10-051-84	Initiated	Univ.
CSU Administration	0-02-998-84	Completed	Univ.	

Overall Activities FY 84 (3-31-85)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Worldwide	Administration	0-01-999-84	Completed	Univ.

Colorado State University Activities FY 85 (3-31-85)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE	
Egypt	TA-Eval. of IMS	1-02-072-85	Formal	USAID	
El Salvador	TA-PID Preparation	1-02-059-85	Initiated	USAID	
India	TT-Dev. of Handbooks	2-13-027-85	Initiated	USAID	
	TT-Technology Transfer	2-06-022-85	Formal	USAID	
	TT-Training Materials	2-13-020-85	Formal	USAID	
	TR-Training of Trainers	2-14-019-85	Formal	USAID	
	TA-Priority Research	1-02-014-85	Formal	USAID	
Indonesia	TA-Cost Recovery Study	1-02-074-85	Initiated	USAID	
Nepal	TR-DA Workshop	2-02-031-85	Initiated	USAID	
Pakistan	TR-Mgmt Off. Trng.-Planning	2-01-065-85			
	TA-Cur. Development	1-02-071-85	Initiated		
Sri Lanka	SS-Landsat 85	3-04-038-85	Initiated	Univ.	
	SS-Interfacing OFWM	3-04-036B85	Initiated	Univ.	
	TA-Central Support-85	1-02-003-85	Formal	USAID	
Sri Lanka, Thailand, India	SS-On-Campus Support	3-04-037-85	Initiated	Univ.	
Swaziland	TA-Irrig. Priorities	1-02-069-85	Formal	USAID	
Worldwide	SS-Projected SS Expend.	3-04-058-85	Cancelled	Univ.	
	TR-Seminar on System Rehab. Phase I	2-05-033-85	Initiated	Univ.	
	TR-Seminar on System Rehab. Phase II	2-05-034-85	Formal	Univ.	
	TR-Microcomputer Workshop	2-14-032-85	Initiated	Univ.	
	SS-Interfacing OFWM Backstopping	3-04-036A85	Initiated	Univ.	
		CSU Administration	0-02-998-85	Initiated	

CORNELL UNIVERSITY ACTIVITIES FY-84

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
India	SS-Community Kuhls in Himachal Pradesh	3-04-099-84	Cancelled	UNIV.
Indonesia	TA-Small-Scale Irrigation and Management Project	1-02-011-84	Finished	USAID
Niger	SS-Small-Scale Irrigation in Niger, Preliminary	3-04-098-84	Finished	UNIV
	SS-Traditional and Developed Small-Scale Irrigation Study	3-04-111-84	Initiated	UNIV
Sri Lanka	TA-Farmer Organization Program	1-02-007-84	Finished	USAID
	SS-Impact of Physical and Operational Rehabilitation	3-04-097-84	Initiated	UNIV
Worldwide	TR-Main System Irrig.Task Force	2-06-077-84	Completed	AID/W
	TR-FAO/AID Expert: Indonesia	2-14-067-84	Finished	AID/W
	TT-Small-Scale Irrig.Task Force	2-14-065-84	Initiated	AID/W
	TT-Professional Visitors	2-11-068-84	Initiated	UNIV
	TT-Current Research Seminar "Planning"	2-14-075-84	Finished	UNIV
	SS-Small-Scale Completion	3-04-069-84	Initiated	UNIV
	SS-Analysis of Participation Completion (FY-83)	3-04-070-84	Initiated	UNIV
	SS-Management Intensities	3-04-096-84	Initiated	UNIV

CORNELL UNIVERSITY ACTIVITIES FY-85

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
India	TR-Farmer Organization Workshop	2-14-017-85	Cancelled	UNIV
Indonesia	TA-SSI Workshop	1-02-009-85	Initiated	USAID
Mauritania	TA-Peace Corps Assistance	1-02-061-85	Approved	USAID
Niger	SS-Traditional and Developed SSI	3-04-052-85	Initiated	UNIV
Pakistan	TR-Extension Training Recon.	2-06-063-85	Formal	USAID
Sri Lanka	TA-Socioeconomic Studies	1-02-004-85	Approved	USAID
Worldwide	TA-Recurrent Costs	1-02-062-85	Initiated	AID/W
	TR-Rehabilitation Game	2-13-048-85	Initiated	UNIV
	TR-Lessons Learned Workshop	2-14-049-85	Approved	UNIV
	TR-Current Research Seminar	2-14-050-85	Finished	UNIV
	SS-Indirect Investment Phase I	3-04-053-85	Finished	UNIV
	SS-Indirect Investment Phase II	3-04-054-85	Initiated	UNIV
	SS-Rural Employment	3-04-055-85	Initiated	UNIV
	SS-Management Intensities	3-04-056-85	Initiated	UNIV

Utah State University Activities

FY 83

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Africa	SS-Dev. of Social Parameters	3-04-057-83	Finished	UNIV
Dominican Republic	TA-Project PID	1-02-010-82	Completed	USAID
	TA-Project Paper (OFWM)	1-02-009-83	Completed	USAID
Ecuador	TT-Ecuavir Video	2-03-054-83	Initiated	UNIV/USAID
Haiti	TA-Irrigation Project Eval.	1-02-039-83	Completed	USAID
India	TA-Water Mgmt. & Training	1-02-020-82B)	Completed	USAID
	and Water Management CWM	1-02-029-83)		
	TA-Olsen's TDY	1-02-037-83	Completed	USAID
	TA-Institutional Analysis	1-02-053-83	Finished	AID/WASH
Jordan	TA-Review of Curriculum	1-02-041-82	Completed	USAID
Mali	TA-OFWM Specialist	1-02-006-83	Completed	USAID
Pakistan	TA-Mayfield's TDY	1-02-040-83	Completed	USAID
Peru	TA-Special Study	1-04-027-82A	Finished	USAID
West Africa	SS-Small-Scale Irrigation	3-04-036-83	Completed	UNIV
Worldwide	TT-Start-up Workshop	2-14-055-83	Completed	UNIV
	TT-Short-term Nondegree	2-08-056-83	Completed	UNIV
	SS-On-Farm Irr. Sys. Selection	3-04-058-83	Completed	UNIV
	SS-Main Sys. Mgmt. & Rehab.	3-04-059-83)	Initiated	UNIV
	and Action Research	3-04-060-83)		

Utah State University Activities

FY 84

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Africa	TA-African Irrigation Overview	1-02-108-84	Initiated	AID/WASH
Chile	TT-Conference	2-14-058-84	Completed	AID/WASH
Dominican Republic	TA-Weed Control Specialist	1-02-091-84	Finished	USAID
Ecuador	TT-Finishing Original Modules	2-03-054-84	Initiated	USAID
	TT-Instructional Manual	2-03-055-84	Cancelled	UNIV
Haiti	TA-Irrigation Sector Survey	1-04-017-84	Initiated	USAID
India	TA-Short Course	1-02-100-84	Finished	USAID
	TA-Maharashtra MIP	1-02-018-84	Finished	USAID
	SS-Irrig. Project Monitoring	3-04-020-84	Cancelled	UNIV
	TA-Maharashtra IT&M	1-01-021-84	Initiated	USAID
	TA-Soc/Tech Feas. Study	1-02-023-84	Approved	USAID
	TA-Madhya Pradesh MIP	1-01-025-84	Cancelled	USAID
	TT-Senior Officer's Workshop	2-04-053-84	Initiated	UNIV/USAID
	TA-Irr. Eval. & Strategy Review	1-02-103-84	Initiated	USAID
Jordan	TA-Irrigation Sector Survey	1-04-013-84	Finished	USAID
	TA-WM Specialist (TDY)	1-02-014-84	Initiated	USAID
	TT-On-Farm Water Management	2-01-015-84	Cancelled	USAID
Pakistan	TA-Irrigation Policies	1-02-101-84	Finished	USAID
	TA-Command Water Management	1-02-106-84	Finished	USAID
Peru	TA-Small & Med. Irri. Systems	1-02-035-84	Finished	USAID
	TA-Plan MERIS	1-01-112-84	Initiated	USAID
Senegal	TA-Bakel Irr. Per. Assist.	1-02-033-84	Approved	USAID
Swaziland	TA-Irri. System Monitoring	1-02-063-84	Pending	USAID
Tanzania	TA-Irrigation Study	1-02-082-84	Finished	USAID
Worldwide	TT-French Language Training	2-11-059-84	Initiated	UNIV
	TT-Irr. Sys. Mgmt. Task Force	2-14-060-84	Initiated	UNIV
	SS-Main Sys. Des. Mgmt., Rehab.	3-04-061-84	Initiated	UNIV
	SS-Selection of Irrig. Tech.	3-04-062-84	Completed	UNIV

Utah State University Activities

FY 85

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Bolivia	TT-Small-Scale Course	2-14-010-85	Finished	USAID
	TT-On-Farm Water Mgmt. Course	2-14-011-85	Approved	USAID
Dominican Republic	TT-On-Farm Water Mgmt. Course	2-14-030-85	Cancelled	USAID
Chad	TA-Irrigated Agric. Assessment	1-02-073-85	Formal	USAID
Egypt	TA-Water Use Project Evaluation	1-02-066-85	Finished	USAID
Honduras	TA-Irrigation Development	1-02-060-85	Finished	USAID
India	TA-Water Balance	1-02-023-85	Formal	USAID
	TA-Hydraulic Conductivity	1-02-024-85	Formal	USAID
	TA-Reservoir Operation	1-02-025-85	Formal	USAID
	TA-University Curricula	1-02-013-85	Initiated	USAID
	TT-Rapid Appraisal	2-14-016-85	Formal	USAID
	TT-Innovative Teaching	2-03-012-85	Formal	USAID
	TT-Main Systems Training	2-14-015-85	Formal	USAID
	TT-Computer Assisted ISM	2-14-040-85	Initiated	USAID
Jamaica	TA-Planning Activities	1-02-007-85	Approved	USAID
	TA-System Study	1-02-008-85	Approved	USAID
Jordan	TA-Advisory Service	1-02-028-85	Approved	USAID
Morocco	TA-PID Development	1-02-002-85	Approved	USAID
Nepal	TA-Sm. & Medium Irrigation	1-02-067-85	Initiated	USAID
Sri Lanka	TA-Model Calibration	1-02-005-85	Approved	USAID
Swaziland	TA-Irrigation Assistance	1-02-029-85	Approved	USAID
Worldwide	TT-Lessons Learned	2-14-039-85	Approved	UNIV
	TT-French Language Training	2-11-041-85	Initiated	UNIV
	SS-Main Systems-Remote Sensing	3-04-042-85	Initiated	UNIV
Main Systems	SS-ISM Development	3-04-043A85	Initiated	UNIV
	SS-Thailand Case Study	3-04-043B85	Initiated	UNIV
	SS-Morocco Case Study	3-04-043C85	Approved	UNIV
	SS-India Case Study	3-04-043D85	Initiated	UNIV
	SS-Interdisciplinary Workshop	3-04-043E85	Approved	UNIV

III. ACTIVITIES

This section is a summary of the status of each activity under the WMSII Project. The review includes a synopsis of the purpose and status of each activity, the participants, and the time spent by each individual.

In order to clarify the project activities, this section has been divided into two sections, FY84 and FY85; FY84 and FY85 are divided into the following categories: Technical Assistance, Training and Technology, Special Studies and Administration.

A. FY84

A.1 Technical Assistance Activities

1. AFRICA - African Irrigation Overview

Code Number: 1-02-108-84

Status: Initiated

Lead University: Utah State University

Summary of Work: The main activities have been attempting to get complete working papers into usable form and then synthesis of the overall findings of the study. The lack of primary sources at USU and CSU has made it necessary to depend heavily on the working papers for guidance to the literature. Also, the diversity of African irrigation is much greater than earlier realized and there is hardly anything of a summary nature which can be used as a guide.

The "core group's" in-house seminar session took place as planned the first week of January at USU. Participating were Jon Moris, Derrick Thom, E. Sparling, and K. Stutler (for one day on technical matters). Out of these sessions emerged some general conclusions, which were prepared as a draft paper presented in a WMS II seminar in mid January, and then after some revision as Chapter 1 to a one-day planning session held in Washington, D.C. on February 8.

As of November, it was agreed with the two CSU participants, Podmore and Sparling, that they would complete their papers by Christmas and have them available for the "synthesis" session the first week in January. Podmore was unable to attend, but sent a draft manuscript with seven pages of text, maps, and several appendices derived from other reports (received January 10). Sparling attended and made a valuable contribution to synthesizing the general conclusions, leaving behind a first draft of comments on economic issues (6-7 pp. single space) at the end of the week. This meant, however, that necessary background material on soils and economics was very weak (neither draft report included supporting references). The initial summary conclusions were prepared without benefit of soils' and agronomy aspects, and with relatively thin economic input.

At the February 8 meeting in Washington, it was apparent that the overview activity was badly behind schedule, and W. Clyma agreed to contact Podmore and Sparling to try to speed completion of their working papers. On January 31 Humpal's paper on the agronomy of irrigated rice, cotton and sugar cane was received. It is a major piece of work, with an excellent bibliography; at the PI's suggestion he also furnished short sections on irrigation in Zaire and in Southern Sudan (received mid February). On March 6 a revised soils background paper was received, coauthored by T. Flack and T. Podmore. It, too, is a major piece of work but general application of soils' questions to irrigation occupies only the final five pages; the remainder consists of a country-by-country review of soils. The same day, written comments were received from AID/Washington and from the CSU team on the draft of Chapter 1 presented a month earlier. These requested major revisions and much more attention to implications for donors and for AID strategy.

Moris has concentrated on drafting the final synthesis report, while Thom has taken responsibility for the annotated bibliography (now complete). As of March 31, 1985 the first and last chapters are complete (general conclusions, implications) and the annotated bibliography, summaries of working papers and country reviews are in hand ready for printing as Volume 2. In mid March a slightly revised draft of the economic issues was received from Sparling, which proved helpful in finalizing the draft of Chapter 7. Because of the delay in completion of the total report, the one day preliminary workshop which was to have occurred around March 22-23 was cancelled. A joint presentation of the three Africa Bureau projects will be held on April 18-19 in Washington, D.C.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Jon Moris	1.00 ppm	4.00 ppm	USU	Sociology
Derrick Thom	2.00 ppm	2.00 ppm	USU	History & Geog.
Ed Sparling	0.00 ppm	0.25 ppm	CSU	Ag. Economics
T. Podmore	0.25 ppm	0.25 ppm	CSU	Ag. Engineering
Mary Tiffen	0.00 ppm	1.00 ppm	Consultant	Social Science
Peter Stern	0.00 ppm	1.00 ppm	Consultant	Civil Engineering
Don Humpal	0.00 ppm	1.00 ppm	DAI	Agronomy
Linden Vincent	0.00 ppm	1.00 ppm	Consultant	Social Science
Fred Weber	0.00 ppm	1.00 ppm	Consultant	Forestry Engineer.
Philippe Zgheib	0.00 gpm	3.00 gpm	USU	Civil Engineering
Janet Chambers	1.50 spm	1.50 spm	USU	Typist

2. INDIA - Irrigation Sector Evaluation and Strategy Review

Code Number: 1-02-103-84

Status: Initiated

Lead University: Utah State University

Summary of Work: The Irrigation Sector Team completed the first clean draft of the evaluation, for which the field work was completed in mid December. This draft takes into account feedback from the India Mission, Asia Bureau and other parties (especially David Seckler). This draft, along with an executive summary of principle findings and recommendations, was completed barely in time for use as background reading for a seminar review session on February 11 in Washington, D.C.

Rocky Stapels and Chuck Anholt, along with a group from the Asia Bureau; Owen Cylke and Bill Jansen from USAID/India; Worth Fitzgerald and Douglas Merrey from the S&T Bureau; and the study team, Coward, Daines and Keller, attended the seminar which lasted a full day. Keller presented a 20-minute overview of AID's approximately one-third billion dollar irrigation portfolio which was brought to life by 80 35-mm slides. Then each of the team members presented the sections of the review which they had primary responsibility for. This was interspersed and punctuated by lively discussions.

Director Cylke is pleased with the study and asked that we wrap it up in a timely manner with only minor editorial changes and additions. For the past month we have been in the process of finalizing it complete with an executive summary, two annexes and four appendices. We anticipate finalizing the study and printing the report in the next quarter.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Jack Keller	0.00 ppm	2.04 ppm	USU	Irri. Engineering
Dean Peterson	0.00 ppm	2.00 ppm	Consultant	Irri. Engineering
Samuel Daines	0.50 ppm	3.50 ppm	SRD Research Group	Institutional
Walter Coward	0.00 ppm	0.75 ppm	Cornell	Sociology
Elisabeth Sims	0.00 ppm	1.00 ppm	UC/Berkeley	Sociology
Carl Gotsch	0.00 ppm	0.75 ppm	Consultant	Ag. Economics
J. Pawar	0.00 ppm	0.19 ppm	Consultant	Ag. Economics
M. Sawant	1.50 gpm	3.00 gpm	USU	Irri. Engineering
B. Mulik	1.50 gpm	3.00 gpm	USU	Irri. Engineering

3. INDIA - Maharashtra I T & M Project

Code Number: 1-02-021-84

Status: Initiated

Lead University: Utah State University

Summary of Work: Edwin C. Olsen made a number of trips within India for the purpose of setting up studies and preparation of training courses. Olsen visited Bombay and Pune for the purpose of carrying out several special studies as part of the IT&M Project. Also, he visited Aurangabad to plan a training course for that area of the country. Finally, in Bhopal, both special studies and training programs were carried out.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Edwin C. Olsen	3.00 ppm	6.00 ppm	USU	Irri. Engineering

4. PAKISTAN - Command Water Management Planning

Code Number: 1-02-114-84

Status: Initiated

Lead University: Colorado State University

Summary of Work: Preparations were completed to send a team to Pakistan to finish planning the DA workshop, subproject managers training and extension training.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Mohammed Haider	1.25 ppm	5.25 ppm	CSU	Economics
Wayne Clyma	1.45 ppm	3.55 ppm	CSU	Agricultural Engr.
S. Sritharan	3.00 ppm	7.70 ppm	CSU	Civil Engr.
Ed Shinn	3.00 ppm	7.70 ppm	CSU	Sociology
M. Shafique	3.00 ppm	7.70 ppm	CSU	Agricultural Engr.
S. Karaki	0.00 ppm	0.80 ppm	CSU	Civil Engr.
J. Warner	0.00 ppm	0.33 ppm	CSU	Civil Engr.
Tom Sheng	0.00 ppm	1.75 ppm	CSU	Civil Engr.
Oguz Nayman	0.00 ppm	0.67 ppm	CSU	Tech. Journalism
Max Donkor	0.67 gpm	3.67 gpm	CSU	Agricultural Engr.
Support Staff	0.16 ppm	0.85 ppm	CSU	Support Staff

5. PERU - Plan MERIS

Code Number: 1-01-112-84

Status: Initiated

Lead University: Utah State University

Summary of Work: Despite continued logistical and administrative support problems in Peru, considerable progress was made on the Plan MERIS project. Lack of transportation, equipment and supplies continues to be a problem for the field team in San Marcos. Bids for irrigation equipment have been received, but without an amended PIO/T and/or authorization from the Peru Mission, the equipment cannot be purchased.

Several members of the USU/Cornell advisory team were in San Marcos in February-March, including Barbara Lynch, Anthropologist; Bill Farnsworth, Ag. Extension Specialist; Larry Bond, Ag. Economist; and Don Kidman, Field Agronomist.

Bill Farnsworth conducted a training workshop in Extension Program Development for the Plan MERIS Research and Extension staff working in the State of Cajamarca. This included practical field training in San Marcos area and visits to the extension field agents' offices to review their work plans and assist them in plan adjustments for teaching farmers the skills they had learned. All of the Peruvian field team was involved in giving the training to 31 participants.

Larry Bond also participated in the workshop for two days and then worked with his Peruvian counterpart, Villanueva, in collecting economic data including production costs and modifying collection procedures. He developed computer models for analyzing the data on the Wang and Lotus 1-2-3 in Lima as the IBM PC was not available in San Marcos as planned, and the Plan MERIS Data General Eclipse in Lima was not accessible due to strikes. Computer models developed included: cost of production worksheet; gross margin analysis; and cash flow worksheet.

Barbara Lynch conducted a series of interviews with local irrigation officials, Ministry of Agriculture, Plan MERIS and CIPA personnel to assess their relationships. She also supervised the Peruvian social science team in gathering information on irrigation organization, water management and household strategies, as well as land holding patterns.

Don Kidman is presently in Peru supervising field work of land preparation in the demonstration area outside of San Marcos. He is expected to return in mid April.

Generally to date the field activities are on schedule, thanks to the efforts of the Peruvian field team, but the amended PIO/T is needed quickly in order to remain on schedule and not have to reduce some of the planned activities.

During the quarter Bruce Anderson commenced his administrative duties as coordinator of the Plan MERIS activity. With the departure of Anderson, Kern Stutler assumed those same duties for the rest of the quarter. Mark Lusk also went on Title XII funds as an assistant sociologist.

STAFFING:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
R. Kern Stutler	1.50 ppm	1.50 ppm	USU	Irrig. Engineering
Bill Farnsworth	1.00 ppm	1.78 ppm	USU	Ag. Extension
David James	0.00 ppm	0.78 ppm	USU	Soil Science
Mark Lusk	1.00 ppm	1.00 ppm	USU	Sociology
Larry Bond	1.00 ppm	1.00 ppm	USU	Ag. Economics
Barbara Lynch	1.00 ppm	1.78 ppm	Cornell	Anthropology
Bruce Anderson	0.75 ppm	3.12 ppm	Consultant	Irrig. Engineering
Ivan Corbridge	3.00 ppm	5.47 ppm	Consultant	Ag. Economics
Mark Anderson	0.00 ppm	1.19 ppm	Consultant	Irrig. Engineering
Renato Rossi	3.00 ppm	5.00 ppm	Consultant	Irrig. Engineering
Don C. Kidman	1.50 ppm	1.50 ppm	Consultant	Agronomy
Luis Barrios	3.00 ppm	3.00 ppm	Consultant	Extension
Julio Guerra	3.00 ppm	3.00 ppm	Consultant	Administration
Jose Luis Villaran	3.00 ppm	3.00 ppm	Consultant	Sociology
Carlos Villanueva	3.00 ppm	3.00 ppm	Consultant	Ag. Economics
Carlos Nonone	3.00 ppm	3.00 ppm	Consultant	Agronomy

6. SRI LANKA - Long-Term WM Specialist

Code Number: 1-01-109-84

Status: Initiated Lead University: Colorado State University

Summary of Work: Larry Nelson is working with the mission to develop a water management cell in Sri Lanka that will investigate water management problems throughout the country. Nelson spent January in a reconnaissance study of the site.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Larry Nelson	3.00 ppm	12.00 ppm	CSU	Agronomy

7. SRI LANKA - Design Team

Code Number: 1-02-102-84

Status: Approved Lead University: Colorado State University

Summary of Work: The final draft of the report on the project design paper for the Sri Lankan mission was sent.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Alan Early	0.00 ppm	3.00 ppm	CSU	Agricultural Engr.
Wayne Clyma	0.00 ppm	0.60 ppm	CSU	Agricultural Engr.
Jeff Brewer	0.00 ppm	2.00 ppm	Consultant	Social Scientist
R. McConnen	0.00 ppm	0.00 ppm	Consultant	Economics
G. V. Skogerboe	0.00 ppm	0.00 ppm	USU	Agricultural Engr.
Darlene Fowler	0.25 ppm	1.25 ppm	CSU	Tech. Journalism
Support Staff	1.60 ppm	2.01 ppm	CSU	Support Staff

A. FY84

A.2 Training and Technology Transfer Activities

1. ECUADOR - Ecuavir Training Modules

Code Number: 2-03-054-84

Status: Initiated

Lead University: Utah State University

Summary of Work: The production of the 40 audio-visual modules for training irrigation technicians has essentially been completed. Chapter 2, consisting of Modules 21 through 28 was delivered to the Ecuador AID Mission in early February. Chapters 3 and 4, containing Modules 29 through 40 are expected to be completed and delivered by April 15. An index of the modules has been prepared which gives the key concepts and sketches of the related graphics. This index will be helpful in allowing the users to quickly acquaint themselves with the modules and select appropriate modules for any given training situation. The complete series of modules with the index will be available in both English and Spanish in April, 1985.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Tom Cronkite	0.00 ppm	3.00 ppm	USU	Media Specialist
Kern Stutler	0.00 ppm	0.22 ppm	USU	Irri. Engineering
Linda Fields	0.00 spm	0.11 spm	USU	Typing
S. von Borries	0.00 gpm	1.25 gpm	USU	Spanish Narration
E. Campanella	0.00 gpm	2.21 gpm	USU	Computer Graphics
B. Reid	0.00 gpm	2.46 gpm	USU	Computer Graphics
W. Lowrey	0.00 gpm	0.75 gpm	USU	Graduate Student
E. Rouse	0.00 gpm	0.50 gpm	USU	Narrator
S. Diaz	0.00 gpm	0.11 gpm	USU	Graduate Student

2. PAKISTAN - Sr. Officer's Workshop/Seminar

Code: 2-04-019-84

Status: Initiated Lead University: Colorado State University

Summary of Work: The workshop has been postponed indefinitely because of delays in getting participants selected and approved.

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Ramchand Oad	0.00 ppm	2.25 ppm	CSU	Agricultural Engr.
Mohammed Haider	0.00 ppm	0.50 ppm	CSU	Economics
Wayne Clyma	0.19 ppm	1.14 ppm	CSU	Agricultural Engr.
Robby Laitos	0.25 ppm	0.25 ppm	CSU	Sociology

3. WORLDWIDE - DA Trainers Workshop

Code Number: 2-08-040-84

Status: Initiated

Lead University: Colorado State University

Summary of Work: A workshop to train those interested in becoming trainers for future DA workshops is being planned for late summer. Ms. Duneman worked on logistics for having the DA trainers workshop the last week of August at CSU.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Ramchand Oad	0.00 ppm	1.50 ppm	CSU	Agricultural Engr.
Robby Laitos	0.00 ppm	0.50 ppm	CSU	Sociology
Oguz Nayman	0.00 ppm	0.42 ppm	CSU	Tech. Journalism
Vicki Duneman	0.33 ppm	0.33 ppm	CSU	Tech. Journalism

4. WORLDWIDE - Survey of Training

Code Number: 2-09-049-84

Status: Formal

Lead University: Colorado State University

Summary of Work: A training workshop to review present project training programs and to develop strategies for future programs was approved by AID/Washington. Plans are now being made for conducting the workshop in late summer.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Lynn Gibson	0.00 gpm	3.00 gpm	CSU	Economics
Al Madsen	0.00 ppm	1.31 ppm	CSU	Economics

5. WORLDWIDE - Microcomputers

Code Number: 2-10-051-84

Status: Initiated Lead University: Colorado State University

Summary of Work: Computer applications were developed and tested to assist trainees in DA workshops to analyze data and simplify report writing. Testing was done during the India DA Workshop. A users manual has been prepared in draft form. Tom Sheng worked on a draft for the user's manual.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Dave Molden	0.00 gpm	3.49 gpm	CSU	Civil Engr.
Tom Sheng	0.75 ppm	3.75 ppm	CSU	Civil Engr.
Dan Sunada	0.00 ppm	2.33 ppm	CSU	Civil Engr.
Mohammed Haider	0.00 ppm	0.50 ppm	CSU	Economics

6. WORLDWIDE - Professional Visitors & Networking

Code Number: 2-11-039-84

Status: Initiated Lead University: Colorado State University

Summary of Work: No activity this quarter.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Oguz Nayman	0.00 ppm	0.67 ppm	CSU	Tech. Journalism

7. WORLDWIDE - Brochures, Newsletters, Publications

Code Number: 2-12-044-84

Status: Initiated Lead University: Colorado State University

Summary of Work: Make corrections in project brochure, prepared format for newsletter, and reprinted publications. Ms. Fowler made corrections in project brochure, worked on the format for the project newsletter, and took care of reprinting project publications.

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Darlene Fowler	0.70 ppm	0.70 ppm	CSU	Tech. Journalism

8. WORLDWIDE - Instructor's Guide for DA

Code Number: 2-13-042-84

Status: Initiated Lead University: Colorado State University

Summary of Work: No activity this quarter.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Larry Nelson	0.00 ppm	2.25 ppm	CSU	Agronomy
Robby Laitos	0.00 ppm	1.00 ppm	CSU	Sociologist
Ramchand Oad	0.00 ppm	0.88 ppm	CSU	Agricultural Engr.
Mohammed Haider	0.00 ppm	1.00 ppm	CSU	Economics

9. WORLDWIDE Professional Visitors

Code Number: 2-11-068-84

Status: Initiated Lead University: Cornell University

Summary of Work: Dr. Jeffrey Brewer presented an informal seminar to the Irrigation Studies Group on the anthropologist's roles in irrigation development with reference to his experiences in Sri Lanka and Indonesia. Dr. Sadiq Bhuiyan, chairman, Department of Water Management, IRRI, and Dr. Tom Weaver, economist, University of Rhode Island, spoke to the group on Research Priorities for Irrigation Management. Glen Anders, AID/REDSO, gave an overview of typologies and irrigation problems in the Sahel.

10. WORLDWIDE Small-Scale Irrigation Task Force

Code Number: 2-14-065-84

Status: Initiated Lead University: Cornell University

Summary of Work: No additional work completed this quarter. A combined task force meeting and seminar on Lessons Learned is tentatively planned for fall, 1985.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.0 ppm	.35 ppm	Cornell	Rural Sociology
Ramchand Oad	0.0 ppm	.1 ppm	CSU	Agri. Engineering
William Easter	0.0 ppm	.1 ppm	Minnesota	Agri. Economics
George Honadle	0.0 ppm	.1 ppm	Development Alternative Inc.	
Roberto Lenton	0.0 ppm	.1 ppm	Ford Foundation	Engineering
Kern Stutler	0.0 ppm	.1 ppm	USU	Irri. Engineering
Douglas Merrey	0.0 ppm	.1 ppm	AID/W	Anthropologist
Guy Lemoigne	0.0 ppm	.1 ppm	World Bank	Irrigation Adviser

A. FY84

A.3 Special Studies

1. SRI LANKA Impact of Physical and Operational Rehabilitation on Equity of Water Distribution and Performance of Farmer Organizations

Code Number: 3-04-097-84

Status: Initiated Lead University: Cornell University

Summary of Work: This study assesses experience in the Left Bank/Gal Oya, Sri Lanka in shifting and sharing responsibilities for main system management, with a focus on activities such as measuring and monitoring water deliveries with farmer participation. Zolezzi has completed a draft final report which has been returned with comments.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Hammond Murray-Rust	0.0 ppm	1.0 ppm	Cornell	Irri. Engineering
Oscar Zolezzi	0.0 gsm	4.5 gsm	Cornell	Irri. Engineering

2. WORLDWIDE Comparative Analysis of Farmer Participation

Code Number: 3-04-070-84

Status: Initiated Lead University: Cornell University

Summary of Work: Work on a state-of-the-art paper continues, with publication planned in early 1985. The revised current draft will be published as a WMS-II report.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Norman Uphoff	0.0 ppm	3.0 ppm	Cornell	Political Science
Nancy St. Julien	0.0 ppm	10.0 gsm	Cornell	City & Regional Planning
Bryan Bruns	0.0 gsm	3.0 gsm	Cornell	Rural Sociology
Ruth Meinzen-Dick	0.0 gsm	5.0 gsm	Cornell	Rural Sociology

3. WORLDWIDE Small-Scale Irrigation Systems Study Completion

Code Number: 3-04-069-84

Status: Initiated Lead University: Cornell University

Summary of Work: E. Walter Coward, Jr.'s paper, "Improving Policies and Programs for the Development of Small-Scale Irrigation Systems," was published in September 1984 as Water Management Synthesis Report Number 27. "Small-Scale Irrigation: An Examination of Critical Design Issues" (Wensley, Norman, Merrill and Walter) and Agency Capacities in Small-Scale Irrigation Development" (E.W. Coward, Jr. and Susan Turnquist) are being prepared for publication. "Community Participation and Local Organization for Small-Scale Irrigation" (Barbara D. Lynch) is in press.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.0 ppm	3.1 ppm	Cornell	Rural Sociology
Michael Walter	0.0 ppm	3.1 ppm	Cornell	Agri. Engineering
James Nickum	0.0 ppm	6.0 ppm	Cornell	Economics
Barbara D. Lynch	0.0 ppm	7.5 ppm	Cornell	Rural Sociology
Beth Rose	0.0 ppm	2.4 ppm	Cornell	Editing
Ray Norman	0.0 gsm	12.0 gsm	Cornell	Agri. Engineering
Susan Turnquist	0.0 gsm	12.0 gsm	Cornell	Rural Sociology
Luin Goldring	0.0 gsm	0.1 gsm	Cornell	Rural Sociology

4. WORLDWIDE - Interfacing Farm & Mgmt. Systems

Code Number: 3-04-045-84

Status: Initiated Lead University: Colorado State University

Summary of Work: Activity was cancelled retroactive to September 30, 1984.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Mohammed Haider	0.00 ppm	0.50 ppm	CSU	Economics
Robby Laitos	0.00 ppm	0.50 ppm	CSU	Sociology
Edwin Shinn	0.00 gpm	2.50 ppm	CSU	Sociology
John Wilkins-Wells	0.00 gpm	2.50 ppm	CSU	Sociology
Kanda Paranakian	0.00 gpm	4.50 ppm	CSU	Sociology
Dave Freeman	0.00 ppm	4.67 ppm	CSU	Sociology
Robert Young	0.00 ppm	2.00 ppm	CSU	Economics
Al Early	0.00 ppm	1.25 ppm	CSU	Ag. Engineering
Dennis Wendell	0.00 gpm	0.50 gpm	CSU	Sociology

A. FY84

A.6 Summary FY84

A.6 Summary FY84

A review of the activity categories of technical assistance, training and technology, and special studies shows the following profile relative to institutional status and specialization areas of persons employed in each activity. This summary does not include administrative activities.

TABLE I. Amount of Employment Time Relative to Organizational Affiliations

<u>AFFILIATIONS:</u>	<u>QUARTERLY EMPLOYMENT TIME:</u>
Colorado State University	19.18
Colorado State Graduate Students	.67
Utah State University	10.50
Utah State Graduate Students	4.50
Cornell University	1.00
SRD Research	.50
Independent Consultants	23.25

One important objective and activity of the WMSII project is that of increasing the quality and expanding the pool of expertise in water management. The universities are fulfilling this objective by involving professionals from other institutions in activities, employing persons who are not affiliated with any institutions, and by incorporating graduate students whenever appropriate.

The employment profile for the project activities of Utah State University Colorado State University, and Cornell University, is shown on Tables II, III, and IV. These figures do not include administrative activities.

SOURCE OF PERSONNEL: QUARTERLY EMPLOYMENT TIME:

TABLE II. Colorado State University Employment Profile

Colorado State University	18.93
Colorado State Graduate Students	.67

TABLE III. Cornell University Employment Profile

TABLE IV. Utah State University Employment Profile

Utah State University	10.50
Utah State Graduate Students	4.50
Consultants	23.25
Cornell University	1.00
Colorado State University	.25
SRD Research	.50

B. FY85

B.1 Technical Assistance

1. EL SALVADOR - PID Preparation

Code Number: 1-02-059-85

Status: Initiated

Lead University: Colorado State University

Summary of Work: An Agricultural Engineer and a social scientist assisted the USAID mission in preparation of a Project Implementation Document.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Mohan R. Junna	1.00 ppm	1.22 ppm	CSU	Agricultural Engr.
Darlene Fowler	0.65 ppm	0.65 ppm	CSU	Tech. Journalism

2. EGYPT - Water Use Project Evaluation

Code Number: 1-02-066-85

Status: Initiated

Lead University: Utah State University

Summary of Work: The evaluation scope of work called for a multidisciplinary team to conduct the evaluation over a 21-day period including production of a final evaluation report. Several major constraints existed given the time frame: 1) the project has produced a prodigious amount of literature (over 80 technical reports and manuals, a large number of draft working papers, several volumes of TDY reports and memos), all of which required perusal and selective study, in addition to previous evaluation and audit reports and other relevant documentation); 2) the three pilot field sites had to be visited; 3) efforts had to be made to look outside WRC and MOI for relevant institutional connections; and 4) minor attempts at verification of findings, mainly through comparison with non-project documentation were called for. Moreover, the fact that the project has ended meant all CSU team members had departed and, therefore, their perspectives and actual responsibilities had to be reconstructed solely from documentation. Given these circumstances the team looked upon itself as potential clients who would approach EWUP and WRC to see what could be provided as to new understandings of on-site water management in Egypt and what solution had been developed to respond to identified needs. In terms of its final evaluation of the project's performance, the team weighed its findings against three fundamental questions: 1) what was promised (in terms of applicable research, replicable methodology, increased production, and socio-economic benefits to farmers); 2) what was actually produced, and most important of all; 3) what is indicated as the appropriate next steps for irrigation sector activities in general and USAID support activities, such as EWUP and IMS, in particular.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
A. Alvin Bishop	1.00 ppm	1.00 ppm	USU	Irri. Engineering
Howard Peterson	1.00 gpm	1.00 gpm	USU	Agronomy

3. INDIA - University Curricula

Code Number: 1-02-013-85

Status: Initiated

Lead University: Utah State University

Summary of Work: Dean F. Peterson began work on this activity for two weeks in India. Because of budget considerations the activity is principally funded for only in-country work and does not include international travel. Dr. Peterson began work on curricula strategies which may be used in irrigation classes. In the future Dr. Peterson will examine detailed alternatives for university curricula with regard to irrigation at several universities.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Dean F. Peterson	0.50 ppm	0.50 ppm	USU	Irri. Engineering

4. INDONESIA - Cost Recovery Study

Code Number: 1-02-074-85

Status: Initiated

Lead University: Colorado State Universty

Summary of Work: Ramchand Oad prepared to take part in an Indonesia cost recovery study. He went to Washington to meet with the consulting firm team in March in preparation for the trip.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Ramchand Oad	0.15 ppm	0.15 ppm	CSU	Agricultural Engr.

5. INDONESIA Small-Scale Irrigation Workshop and Other Technical Assistance

Code Number: 1-02-009-85

Status: Initiated Lead University: Cornell University

Summary of Work: This activity consists of a series of efforts in support of irrigation development in Indonesia including technical assistance in analysis of irrigation regulation and water disputes, engineering assistance to various small-scale irrigation projects, and a workshop for selected Indonesian government officials from West Java, NTB and NTT.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Loren Parks	0.0 ppm	1.0 ppm	University of California (Davis)	Economics
Ramchand Oad	0.0 ppm	1.0 ppm	CSU	Engineering
Andrew Keller	0.0 ppm	1.0 ppm	USU	Irri. Engineering
Jeff Brewer	0.0 ppm	1.0 ppm	CSU	Anthropology

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
D. Hammond Murray-Rust Research Issues in Water Management	December 1984	Conference participants
Lenton, Roberto Some Considerations on Irrigation Management Research Priorities in Asia	"	"
Panabokke, C.R. Irrigation Management Issues on Crop Diversification in Major Irrigation Schemes	"	"
Weaver, Thomas F. Problem Areas and Researchable Issues in Irrigation	"	"

6. NEPAL - Small- and Medium-Scale Irrigation Systems

Code Number: 1-02-067-85

Status: Initiated

Lead University: Utah State University

Summary of Work: The WMS II Project Paper (PP) design team was allocated five weeks by the USAID/Nepal Mission Director to prepare the Irrigation Management Project (IMP) Paper. Also, the mission director assigned the team leader the responsibility for meeting the Nepali Government Agencies to inform them of the intent of this project. As a consequence, the WMS II team only allocated five days for a field trip in the hills and terai (plains) in central Nepal. Also, because of having such a short time period for this assignment, the team agreed that they would only attend a few meetings where their presence was essential and that the team leader would do all of the negotiating with the Nepali Government Agencies.

The approach described above, along with having a word processor, made it possible to do the first three drafts of this Project Paper. Then, the disk from a Compac word processor was placed on USAID's Wang word processor through the efforts of Mrs. Manda Levenson, who is a Computer Specialist in AID/Nepal. Upon the departure of the team leader on March 23, a fourth draft had been completed and most of the remaining corrections completed. Dr. Laitos and Mr. Martin remained in Nepal to complete the final corrections for the project paper.

The Project Identification Document (PID) was approved in Washington, D.C. on March 5, 1985. This was an unusual assignment that the project paper was initiated before the PID approval.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
G. V. Skogerboe	1.25 ppm	1.25 ppm	USU	Irri. Engineering
A. Early	0.75 ppm	0.75 ppm	CSU	Irri. Engineering
R. Laitos	1.50 ppm	1.50 ppm	CSU	Sociologist
E. Martin	1.25 ppm	1.25 ppm	Consultant	Ag. Economist

7. PAKISTAN - Curriculum Development

Code Number: 1-02-071-85

Status: Initiated Lead University: Colorado State University

Summary of Work: Preparations were made to go to Pakistan to arrange for the Pakistan DA workshop.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Wayne Clyma	0.25 ppm	0.25 ppm	CSU	Agricultural Engr.

8. WORLDWIDE Meeting Recurrent Costs of Irrigation Systems—A Systematic Assembly and Synthesis of What is Known

Code Number: 1-02-062-85

Status: Initiated Lead University: Cornell University

Summary of Work: This activity consists of a subcontract to the University of Minnesota to support the research of K.W. Easter and a graduate student on financing recurrent costs of irrigation programs in developing countries. The study will include a literature review, four or five case studies, and analysis and synthesis of findings. In addition, Coward and Uphoff has prepared a complementary paper entitled O&M Costs in Irrigation: Reappraising Government and Farmer Responsibilities and Rights. This paper considers strategies for enabling farmer organizations to assume control of O&M activities on large as well as small-scale systems for the Manila ARDO Conference to be held in May 1985. The report will summarize literature and experiences to suggest ways in which AID can reduce recurrent costs in its projects.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
K. William Easter	0.6 ppm	1.2 ppm	U. Minnesota	Agri. Economist
E.W. Coward, Jr.	.25 ppm	.25 ppm	Cornell	Rural Sociology
Norman Uphoff	.25 ppm	.25 ppm	Cornell	Political Science
Graduate Student	1.5 gsm	3.0 gsm	U. Minnesota	Agri. Economist

B. FY85

B.2 Training and Technology Transfer

1. INDIA - Computer Assisted Irrigation System Management, Main Systems Training, Reservoir Operation Studies, and the India Case Study

Code Numbers: 2-14-040-85, 2-14-015-85, and 1-02-025-85

Status: Initiated

Lead University: Utah State University

Summary of Work: During this quarter USU revised its India strategy somewhat. Subprojects #3-04-043D85 and #2-14-040-85 were redeveloped into a single effort to develop about six of the Ecuavir-type video modules covering the use of micro computers in irrigation systems analyses. The proposal is under review in Washington. While this proposal was under review, Wynn Walker made preliminary adjustments on the computer model for India as part of this approved activity.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Wynn R. Walker	1.58 ppm	3.16 ppm	USU	Irrig. Engineering

2. INDIA - Development Of Handbooks

Code Number: 2-13-027-85

Status: Initiated

Lead University: Colorado State University

Summary of Work: Outlines and background materials were gathered for development of on-farm irrigation structures handbooks to be written in India. A. R. Robinson's trip to India was postponed, though, because of lack of GOI clearance.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
A. R. Robinson	0.62 ppm	0.62 ppm	Consultant	Agricultural Engr.
Ramchand Oad	1.10 ppm	1.10 ppm	CSU	Agricultural Engr.
Mel Skold	1.00 ppm	1.00 ppm	CSU	Economics
William Laitos	0.25 ppm	0.25 ppm	CSU	Sociologist
Darlene Fowler	1.50 ppm	1.50 ppm	CSU	Tech. Journalism

3. NEPAL - DA Workshop

Code Number: 2-02-031-85

Status: Initiated Lead University: Colorado State University

Summary of Work: DA study was coordinated in Nepal. A seminar for senior officials reporting the study results also was conducted.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
William Laitos	1.65 ppm	3.65 ppm	CSU	Sociology
Oguz Nayman	3.00 ppm	3.25 ppm	CSU	Tech. Journalism
Tom Sheng	2.25 ppm	2.50 ppm	CSU	Civil Engineering
Al Early	1.40 ppm	1.40 ppm	CSU	Agricultural Engr.
Duane Johnson	2.00 ppm	2.00 ppm	CSU	Agronomy

4. WORLDWIDE - Seminar on System Rehab. Phase I

Code Number: 2-05-033-85

Status: Initiated Lead University: Colorado State University

Summary of Work: Background information was gathered and contacts made to help prepare state of art paper. Dr. Haider and Dr. Reddy did research and made contacts with Asian Development Bank, World Bank and others for additional information needed to prepare the state of the art paper.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Mohammed Haider	0.75 ppm	0.75 ppm	CSU	Economics
Mohan Reddy Junna	1.00 ppm	1.00 ppm	CSU	Agricultural Engr.

5. WORLDWIDE - Microcomputer Workshop

Code Number: 2-14-032-85

Status: Initiated Lead University: Colorado State University

Summary of Work: A rough draft of an informational brochure and videotape were prepared to give missions/host countries information about the proposed workshops and to see if one of them would like to host it.

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
John Webb	1.25 ppm	1.25 pp	Consultant	Tech. Journalism

6. WORLDWIDE - French Language Training

Code Number: 2-11-041-85

Status: Initiated

Lead University: Utah State University

Summary of Work: The French language training component of WMS was maintained with daily sessions with Dr. Walker. He has currently reached unit 9 in the first part of the State Department manuals. Dr. Smith temporarily stopped training during the quarter due to illness.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Jean Paul Favre	0.00 gpm	0.37 gpm	USU	Engineering

7. WORLDWIDE Rehabilitation, A Game Simulation of Participation in Irrigation Development

Code Number: 2-13-048-85

Status: Initiated

Lead University: Cornell University

Summary of Work: Rob Oakes, Tammo Steenhuis, and Norman Uphoff, Cornell University, and Ed Vander Velde, Aquinas College, worked on the further development of a rehabilitation game simulation originally developed for use in Sri Lanka. The game is a simulation of the conditions and problems of rehabilitating a hypothetical distributary channel command area in an existing irrigation system. Oakes and Steenhuis developed the game for computer-assisted play. The most recent version of the game will be tested at the Manila ARDO workshop in April.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Rob Oakes	2.0 gsm	2.0 gsm	Cornell	Agri. Engineering
Tammo Steenhuis	0.5 ppm	0.5 ppm	Cornell	Agri. Engineering
Norman Uphoff	0.5 ppm	0.5 ppm	Cornell	Political Science
Ed Vander Velde	0.2 ppm	0.2 ppm	Aquinas Coll.	Geography

B. FY85

B.3 Special Studies

1. INDIA - India Main Systems Case Study

Code Number: 3-04-043D85

Status: Initiated

Lead University: Utah State University

Summary of Work: During this quarter USU revised its India strategy somewhat. Subproject #3-04-043D85 and 2-14-040-85 were redeveloped into a single effort to develop about six of the Ecuavir-type video modules covering the use of micro computers in irrigation systems analyses. The proposal is under review in Washington. Keller and Vlotman undertook technical model adjustments as part of their activities under this approved program.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Andrew Keller	1.50 gpm	3.00 gpm	USU	Irri. Engineering
Willem Vlotman	1.50 gpm	3.00 gpm	USU	Irri. Engineering

2. NIGER Traditional and Developed Small-Scale Irrigation Study

Code Number: 3-04-052-85 (formerly 3-04-111-84)

Status: Initiated Lead University: Cornell University

Summary of Work: Norman has established research sites at Moullela and Guidan-Magagi, two ONAHA perimeters in the Maggia Valley and at Koumassa, a traditional onion gardening site. Data collected include plot measurements and mapping, plant density counts, timing of furrow and basin wetting, infiltration rates, soil moisture monitoring. Norman has been interviewing farmers to gather data outside of the research sites with Nigerien assistants. In addition, at the request of AID/Niamey, Norman has consulted with other groups in Niger who have an interest in small-scale irrigation.

Mike Walter visited Niger for three weeks in February in order to review Norman's progress and to become more familiar with small-scale irrigation in Niger. On the basis of his trip, Walter recommends that a social scientist consult with and/or work with Norman on the socioeconomic component of small-scale irrigation in the Maggia Valley and that Tammo Steenhuis plan a visit during June or July to work with Norman in the field.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Ray Norman	3.0 gsm	9.5 gsm	Cornell	Agri. Engineering
Mike Walter	.75 ppm	.75 ppm	Cornell, AID/Delhi	"
John Wells	0.0 gsm	3.5 gsm	Cornell	"

3. SRI LANKA - SS-Interfacing On-Farm Water Management, Backstopping

Code Number: 3-04-036A-85

Status: Initiated Lead University: Colorado State University

Summary of Work: Approval for the Sri Lanka proposal was obtained from the GOSL and the mission. Preparations were made to send John and Pat Wilkins-Wells to Sri Lanka in April. Mr. Wendell continued to do background research on interfacing on farm water management to support the Sri Lanka effort.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Dennis Wendell	1.50 ppm	3.00 ppm	CSU	Sociology
Kanda Paranakian	0.00 ppm	1.50 ppm	CSU	Sociology
David M. Freeman	0.00 ppm	0.50 ppm	CSU	Sociology
John Wilkins-Wells	1.50 ppm	3.00 ppm	CSU	Sociology

4. SRI LANKA - Landsat 85

Code Number: 3-04-038-85

Status: Initiated Lead University: Colorado State University

Summary of Work: A proposal was developed and submitted to Sri Lanka to check Landsat data with ground-truth for same time period.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Tim Martin	1.50 ppm	1.50 ppm	CSU	Agronomy

5. THAILAND - Thailand Case Study

Code Number: 3-04-043B85

Status: Initiated

Lead University: Utah State University

Summary of Work: The two RID engineers are proceeding with their training. Mr. Kanching Kawsard and Mr. Charoon Pajsoontorn have begun the preliminary analysis of the two case study areas and will be assisted by the others in the main systems group.

The anticipated acquisition of a micro computer for the two Thai sites has not materialized as yet. Some question now exists as to what type of system would be the best to train the two engineers in micro utilization. Presently, they are practicing on a HP 9836 and a VAX 780.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Kanching Kawsard	1.50 gpm	3.00 gpm	USU	Irri. Engineering
Charoon Pajsoontorn	1.50 gpm	1.50 gpm	USU	Irri. Engineering

6. WORLDWIDE Irrigation Systems Performance as Affected by Management Intensities

Code Number: 3-04-056-85 (formerly 3-04-096-84)

Status: Initiated Lead University: Cornell University

Summary of Work: Bob Yoder has written draft chapters on the performance of farmer-managed irrigation in two small-scale systems with different supply constraints. He has been focusing on how management practices change in response to different water supply and demand conditions. He finds that access rights to water are very clearly defined and vary depending upon crop. He also finds that water for rice irrigation is very carefully managed so that proportional delivery very closely matches allocation or expected delivery. Ed Martin spent a week visiting Chherlung and Argali irrigation systems to gather additional data on local resource mobilization and on a water rights conflict. Valera has prepared a draft paper on his comparative assessment of three irrigation systems in Central Luzon; Carol Ferguson is analyzing data from her research in the Philippines. Tammo Steenhuis and Randy Barker are supervising the graduate students' research.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Randolph Barker	0.25 ppm	3.0 ppm	Cornell	Agri. Economics
Edward Martin	1.5 gsm	10.5 gsm	Cornell	Agri. Economics
Robert Yoder	3.0 gsm	14.5 gsm	Cornell	Agri. Engineering
Fred Valera	0.0 gsm	9.0 gsm	Cornell	Agri. Engineering
Carol Ferguson	3.0 gsm	1.0 gsm	Cornell	Agri. Economics
Tammo Steenhuis	0.5 ppm	1.5 ppm	Cornell	Agri. Engineering

7. WORLDWIDE - Irrigation System Model Development

Code Number: 3-04-043A85

Status: Initiated

Lead University: Utah State University

Summary of Work: The irrigation system modeling (ISM) effort moved ahead on several fronts. The unit command area submodel was rewritten to integrate two computer software packages into a single menu driven program. These revisions resulted from findings which were made during our implementation in India during the first quarter of FY 85.

Two subprograms dealing with main system hydraulics and flow routing were finished in their level 1 version. Major difficulties in dealing with various types of flow regulating and control structures were largely overcome. These submodels will now be tested and revised. The allocation algorithm for the ISM package has not made satisfactory progress. The problems have been in keeping attention focused on the basic objectives of the work. A more frequent and detailed review of this work has been implemented to correct these problems.

The reservoir operations submodels reached a working stage during the quarter. It is designed using a linear decision rule and is capable of handling multiple reservoirs in parallel or series. To date, non-agricultural water demands are included.

The catchment portion of the package has not been undertaken to date. However, during this quarter, a person has been identified to work on the problem and will begin in the third quarter.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Wynn Walker	0.58 ppm	1.16 ppm	USU	Irri. Engineering
Randy Diven	1.50 gpm	4.00 gpm	USU	Irri. Engineering

8. WORLDWIDE Rural Employment and Irrigation System Performance

Code Number: 3-04-055-85

Status: Initiated Lead University: Cornell University

Summary of Work: A graduate assistant is continuing a literature search and review of materials dealing with the relationships between employment and irrigation development. Not only will research literature be reviewed, but project evaluation documents and knowledgeable individuals will also be consulted.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Ruth Meinzen-Dick	3.0 gsm	6.0 gsm	Cornell	Rural Sociology
E. Walter Coward, Jr.	0.25 ppm	0.25 ppm	Cornell	Rural Sociology

9. WORLDWIDE - Rapid Irrigation Project Appraisal Using Remote Sensing Systems

Code Number: 3-04-042-85

Status: Initiated Lead University: Utah State University

Summary of Work: The subcontract with IRIS, Inc. was approved by USAID and executed by USU. A review of LANDSAT data for the Gal Oya irrigation system in Sri Lanka was initiated. The project area appears to be ideally situated in the orbits of the satellite.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Anala Jayasakaran	0.00 gpm	0.50 gpm	USU	Irrig. Engineering

10. WORLDWIDE Phase II: Comparative Analysis of Indirect Investment Strategies for Development of Small-Scale Irrigation Works

Code Number: 3-04-054-85

Status: Initiated Lead University: Cornell University

Summary of Work: Graduate assistants have been revising a draft paper prepared on indirect investments in US Irrigation by the Soil Conservation Service, the Bureau of Reclamation, the Army Corps of Engineers, and the states. This paper includes an extensive literature review, analysis of indirect investment strategies in the US, and their application to Third World situations.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.25 ppm	0.25 ppm	Cornell	Rural Sociology
Chris Wensley	2.0 gsm	2.0 gsm	Cornell	Agri. Engineering
Luin Goldring	2.0 gsm	2.0 gsm	Cornell	Rural Sociology

B. FY85

B.4 Administration

WORLDWIDE - Administration

Code Number: 0-02-997-85

Status: Initiated

Lead University: Utah State University

Summary of Work: A wide variety of activities were carried out during this quarter to support the general administration as well as specific subactivities of the Project. These included: (1) organization of technical assistance teams and arrangements for their travel; (2) intellectual conceptualization of work activities and new subprojects; (3) accounting services; and (4) the preparation of reports, correspondence, and financial statements for the Project.

A number of reports were prepared and distributed during the quarter, including a draft of the African Irrigation Overview; the WMS II quarterly report; a draft of the India Irrigation Sector Evaluation and Strategy Review; and various trip reports. Consulting agreements were prepared for Bruce Anderson and Don C. Kidman for the Plan MERIS activity; Edward Martin for the Nepal activity; and A. Alvin Bishop and Howard Peterson for the Egypt Water Use Project Evaluation. A subcontract agreement was prepared between Utah State University and IRIS International, Inc. for the Remote Sensing activity.

Travel arrangements including tickets, per diem advances, travel expense clearance, visas, etc. were made for Dean Peterson to Pakistan, India and Sri Lanka; Jack Keller to Sri Lanka; William Farnsworth, Larry Bond, Don Kidman, and Mark Lusk to Peru; A. Alvin Bishop and Howard Peterson to Egypt; and Gaylord Skogerboe and Edward Martin to Nepal. In-country travel included trips to Washington, D.C. for Wynn Walker, Jack Keller and Jon Moris; Bryant Smith and Jack Keller to Denver, Colorado; and Lorraine Walker to Murray, Utah.

Budget revisions were made for the FY 85 Work Plan; the Maharashtra IT&M activity; and the India University Curricula activity. Two new activities were assigned to Utah State University and budgets and scopes of work prepared. General correspondence was prepared between USU and the other participating universities, CID, and the AID project management team.

Weekly WMS seminars were held which covered discussion of the following topics: African Irrigation Overview; Bolivia Small-Scale Irrigation Short Course; the India Irrigation Sector Evaluation and Strategy Review; Sri Lanka; Peru Plan MERIS activity; Honduras; and Lessons Learned.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
<u>Professional:</u>				
Jack Keller	1.09 ppm	1.75 ppm	USU	Irri. Engineering
Bryant Smith	3.00 ppm	6.00 ppm	USU	Institutional
<u>Support Staff:</u>				
JoAnn Biery	3.00 spm	6.00 spm	USU	Secretarial
Linda Fields	1.50 spm	3.00 spm	USU	Secretarial
Jo L. Egelund	1.50 spm	3.00 spm	USU	Accounting
Karen Hammer	1.14 spm	2.64 spm	USU	Production Typing
Lorraine Walker	0.33 spm	0.66 spm	USU	Procurement
<u>Graduate Students:</u>				
N. Adams	0.00 gpm	0.50 gpm	USU	Irri. Engineering
D. Robinson	0.50 gpm	1.25 gpm	USU	Ag. Economics

B. FY85

B.5 Overall Administration--FY85

Administration

1. CSU Administration FY 85 0-02-998-85

NAME	QUARTERLY 1/1/85-3/31/85	CUMULATIVE 3/31/85
Armentrout, Janelle	1.35 ppm	2.70 ppm
Button, Bev	1.00 ppm	2.50 ppm
Clyma, Wayne	0.40 ppm	1.27 ppm
Fowler, Darlene	0.00 ppm	1.00 ppm
Freeman, Dave	0.00 ppm	1.00 ppm
Kelly, Don	1.50 ppm	3.00 ppm
Lattimore, Dan	1.05 ppm	1.72 ppm
Lindburg, Mary	1.80 ppm	4.49 ppm
Madsen, Al	0.00 ppm	1.00 ppm
Schmehl, W.	0.00 ppm	0.50 ppm
Sheng, Tom	0.00 ppm	1.00 ppm
Wunch, Sandra	1.46 ppm	3.35 ppm

E. Overall Administration FY 85 0-01-999-85

NAME	QUARTERLY 1/1/85-3/31/85	CUMULATIVE 3/31/85
Janelle Armentrout	0.45 ppm	0.90 ppm
Beverly Button	1.50 ppm	3.00 ppm
Don Kelly	1.50 ppm	3.00 ppm
Sandra Wunch	0.40 ppm	0.40 ppm

CSU PPM on Other Institution's Activities

Cornell-Indonesia Small Scale 1-02-011-84

Edward Sparling	0.00 ppm	1.24 ppm
George Radosevich	0.00 ppm	0.61 ppm
Ramchand Oad	0.00 ppm	1.50 ppm

Cornell-Indonesia Assessment Team 1-02-009-85

Jeffery Brewer	0.00 ppm	1.50 ppm
Ramchand Oad	0.20 ppm	2.20 ppm

CID-EI Salvador 1-02-107-84

Dan Lattimore	0.00 ppm	1.00 ppm
Darlene Fowler	0.00 ppm	0.35 ppm

Utah State University-Africa 1-02-108-84

Edward Sparling	0.00 ppm	1.44 ppm
Terry Podmore	0.00 ppm	0.70 ppm

Utah State University-Nepal 1-02-067-85

Robby Laitos	1.35 ppm	1.35 ppm
Al Early	0.87 ppm	0.87 ppm

Cornell University-Current Research 2-14-050-85

Al Early	0.25 ppm	0.25 ppm
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PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.25 ppm	0.75 ppm	Cornell	Rural Sociology
Barbara D. Lynch	2.0 ppm	4.0 ppm	Cornell	Rural Sociology
Fua M. Hazelman	3.0 ppm	6.0 ppm	Cornell	Secretarial
Beth Rose	1.2 ppm	2.4 ppm	Cornell	Editing
Betty Van Amburg	0.75 ppm	1.50 ppm	Cornell	Secretarial
Grace Saatman	1.5 ppm	3.0 ppm	Cornell	Accounts Coordinating
Debbie Ostrander	0.75 ppm	1.50 ppm	Cornell	Secretarial

B. FY85

B.6 Summary FY85

B.6 Summary FY85

A review of the activity categories of technical assistance, training and technology, and special studies shows the following profile relative to institutional status and specialization areas of persons employed in each activity. This summary does not include administrative activities.

TABLE V. Amount of Employment Time Relative to Organizational Affiliations

<u>AFFILIATIONS:</u>	<u>QUARTERLY EMPLOYMENT TIME:</u>
Colorado State University	25.95
Cornell University	2.75
Cornell University Graduate Students	21.00
University of Minnesota	.60
Aquinas College	.20
Cornell, AID/Delhi	.75
Utah State University	5.91
Utah State Graduate Students	8.50
Independent Consultants	3.12

One important objective and activity of the WMSII project is that of increasing the quality and expanding the pool of expertise in water management. The universities are fulfilling this objective by involving professionals from other institutions in activities, employing persons who are not affiliated with any institutions, and by incorporating graduate students whenever appropriate.

The employment profile for the project activities of Utah State University, Colorado State University, and Cornell University, is shown on Tables VI, VII, and VIII. These figures do not include administrative activities.

SOURCE OF PERSONNEL: QUARTERLY EMPLOYMENT TIME:

TABLE VI. Colorado State University Employment Profile

Colorado State University	23.70
Consultants	1.87

TABLE VII. Cornell University Employment Profile

Cornell University	2.75
Cornell Graduate Students	21.00
University of Minnesota	.60
Utah State University	1.00
Aquinas College	.20
Cornell, AID/Delhi	.75

TABLE VIII. Utah State University Employment Profile

Utah State University	4.91
Utah State Graduate Students	8.50
Consultants	1.25
Colorado State University	2.25

IV. FINISHED ACTIVITIES

The information contained in this section refers solely to finished activities. When activities appear in this section, the specific work has been finalized and reports have been distributed. After an activity has appeared in this section of the quarterly report, it will not be included again until a final tabulation of funding has been completed. At that time, it will appear as a completed activity in the financial section.

FINISHED ACTIVITIES

A. Technical Assistance Activities

Country: Egypt

Title of Activity: Water Use and Management Project Evaluation

Code Number of Activity: 1-02-066-85

Finished Date 3/85

Lead University: Utah State University

Description of Activity: This activity was for the purpose of evaluating the Water Use and Management Project. In addition to the two WMS II team members, experts in Sociology and Economics were supplied by AID/Washington to round out the team for the purposes of this evaluation. The team carried out a proposed evaluation and appraised the effectiveness of the CSU program in Egypt.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
A. Alvin Bishop	Consultant	Irrig. Engineering
Howard Peterson	Consultant	Agronomy

Significant Findings and Results: Please see Special Focus of USU with regard to this activity for significant findings and results.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Trip Report, Draft of "End of Project Evaluation Report of Egypt Water Use and Management Project"	3/85	CU, CSU, AID

Country: Indonesia

Title of Activity: Small-Scale Irrigation and Management Project

Code Number of Activity: 1-02-011-84

Finished Date: March 1985

Lead University: Cornell University

Description of Activity: The general objective of this activity was to prepare a conceptual framework for future small-scale irrigation program development in Indonesia. Andrew Keller and Doug Vermillion preceded the team in order to collect and review secondary data. The team then visited sites in the provinces of West Java, Nusa Tenggara Barat, and Nusa Tenggara Timor. They also met with local irrigation agency and other agency staff and farmers. Finally, they consulted with irrigation officials in Jakarta. Cost-benefit data was collected by Ed Sparling for the proposed system types and locales. George Radosevich analyzed Indonesian water law to determine the constraints to new types of irrigation program development posed by existing laws.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
E. Walter Coward, Jr.	Cornell	Rural Sociology
Wynn R. Walker	USU	Irrigation Engineering
George Radosevich	CSU	Water Law
Matthew Drosdoff	Cornell	Agronomy
Ramchand Oad	CSU	Irrigation Engineering
Ed Sparling	CSU	Economics
Andrew Keller	USU	Irrigation Engineering
Douglas Vermillion	Cornell	Rural Sociology

Significant Findings: The groups final report lays out a conceptual framework for small-scale irrigation development in Indonesia based on three principles: augmentation, decoupling, and capacitation. The team found that many SSI systems are working against their hydrologic limit. The water supply available is irregular or inadequate. The team recommended the construction of larger works on permanent streams and a network designed to deliver water to the sources used by small systems. This is augmentation.

A second principle—decoupling—consists of a division of labor between irrigation agencies and local organizations. The irrigation agency would operate the augmentation network, while the local organization would retain responsibility for the small-scale system.

In some cases, local organizations may need increased management capacity to deal with an augmented water supply as well as additional physical infrastructure. Capacitation refers to the attempt to increase local managerial and physical capacity and to extend the role of local user groups into design and construction.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
INDONESIA:USAID Small-Scale Irrigation Project Design Team Report #32	November 1984	AID/Jakarta AID/W, CSU Cornell
Water Laws of Indonesia: A Compilation of Selected Water Resources, Policies, Laws, Decrees, Regulations and Instructions (Radosevich)	December, 1984	AID/Jakarta AID/W, USU Cornell
Water Control and Management in Indonesia: Legal and Institutional Aspects	March 1985	AID/Jakarta AID/W, USU Cornell

Country: Worldwide

Title of Activity: Joint Seminar on Current Research in Irrigation

Code Number of Activity: 1-14-050-85

Finished Date: January 1985

Lead University: Cornell University

Description of Activity: A workshop jointly sponsored by WMS-II and IIMI was held at International Irrigation Management Institute Headquarters in Sri Lanka. Workshop objectives were to review the state of research on irrigation management in Asia and to identify priorities for future research.

Six short "think pieces" were prepared by Jack Keller, USU, Roberto Lenton and Gil Levine, Ford Foundation, D. Hammond Murray-Rust, Irrigation Water Management Department, IRRI, C.R. Panabokke, Ministry of Agriculture, ARTI, Sri Lanka, and Thomas F. Weaver, University of Rhode Island. These were circulated prior to the workshop. In addition, papers summarizing research activities in nine Asian countries were presented at the workshop.

Prior to the meeting participants visited one of three field sites to observe first-hand irrigation management problems: Tamil Nadu small-scale tank projects; main system management in Gal Oya, Sri Lanka, and problems below the turnout in a large scale irrigation project in the Pakistani Punjab.

Major workshop themes were (1) general conceptual understanding of the dynamics of irrigation management, (2) research methodologies, (3) applied field research. (See Cornell University Special Focus this quarter for detailed report).

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Randolph Barker	Cornell	Agri. Economics

Significant Findings: Irrigation management was defined to include planning and design, construction, operation and maintenance, irrigated farming, performance evaluation; and rehabilitation. There was broad agreement that major problems in operation and maintenance occurred in the main system, but the potential for increasing productivity through improved main system management was questioned by some participants.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Keller, Jack Critical Irrigation Design, Rehabilitation, and Management Issues	December 1984	Conference participants
Levine, Gil. Irrigation Management Research Needs —Some Comments	"	"

FINISHED ACTIVITIES

B. Training and Technology

Country: Worldwide

Title of Activity: Joint Seminar on Current Research in Irrigation

Code Number of Activity: 2-14-050-85 Finished Date: January 1985

Lead University: Cornell University

Description of Activity: A workshop jointly sponsored by WMS-II and IIMI was held at International Irrigation Management Institute Headquarters in Sri Lanka. Workshop objectives were to review the state of research on irrigation management in Asia and to identify priorities for future research.

Six short "think pieces" were prepared by Jack Keller, USU, Roberto Lenton and Gil Levine, Ford Foundation, D. Hammond Murray-Rust, Irrigation Water Management Department, IRRI, C.R. Panabokke, Ministry of Agriculture, ARTI, Sri Lanka, and Thomas F. Weaver, University of Rhode Island. These were circulated prior to the workshop. In addition, papers summarizing research activities in nine Asian countries were presented at the workshop.

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Major workshop themes were (1) general conceptual understanding of the dynamics of irrigation management, (2) research methodologies, (3) applied field research. (See Cornell University Special Focus this quarter for detailed report).

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Randolph Barker	Cornell	Agri. Economics

Significant Findings: Irrigation management was defined to include planning and design, construction, operation and maintenance, irrigated farming, performance evaluation; and rehabilitation. There was broad agreement that major problems in operation and maintenance occurred in the main system, but the potential for increasing productivity through improved main system management was questioned by some participants.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Keller, Jack Critical Irrigation Design, Rehabilitation, and Management Issues	December 1984	Conference participants
Levine, Gil. Irrigation Management Research Needs--Some Comments	"	"

FINISHED ACTIVITIES

C. Special Studies

Country: Worldwide

Title of Activity: Phase I: Comparative Analysis of Indirect Investment Strategies for Development of Small-Scale Irrigation Works

Code Number of Activity: 3-04-053-84 Finished Date: January 31, 1985

Lead University: Cornell University

Description of Activity: This preliminary activity was designed to yield information on indirect investment in the US so that the applicability of the strategies employed in this country to small-scale projects in developing nations can be addressed. Graduate assistants conducted a literature search related to irrigation development in the United States for the purpose of identifying actions using an indirect investment strategy, and prepared a draft paper on Indirect Investment in US Irrigation Development: Past Approaches and Emerging Directions. Primary attention was directed to collecting information regarding the US experience with indirect irrigation investments as implemented through the Soil Conservation Service (SCS) and similar agencies. Some attention was also given to reviewing materials on investment approaches in LDCs.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
E. Walter Coward, Jr.	Cornell	Rural Sociology
Luin Goldring	Cornell	Rural Sociology
Chris Wensley	Cornell	Agri. Engineering

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Draft Paper: Indirect Investment in US Irrigation Development: Past Approaches and Emerging Directions	January, 1985	CU WMS-II Core faculty JPMT

V. SPECIAL FOCUS

In this section of the report, each university presents an in-depth report of current work undertaken by that university.

- A. Colorado State University
- B. Cornell University
- C. Utah State University

A. CSU SPECIAL FOCUS: NEPAL DIAGNOSTIC ANALYSIS STUDY

I. INTRODUCTION

WMSII conducted a Diagnostic Analysis workshop in Nepal from January 14 to February 19, 1985. The planning for this workshop was a collaborative effort between AID/W, AID/Nepal, GON, and at least two WMS II universities - Colorado State and Cornell.

Based on these discussions and TDY trips to Nepal, we decided that a full-scale training effort would not be appropriate for Nepal. Instead, the workshop would take the form of an actual DA study of an irrigation system, with training as a secondary objective. Using interdisciplinary teams from WMS II and GON, we would use a case study approach to understand how the system operates and to identify priority constraints (Phase I). We would then present our findings to higher-level irrigation and agriculture officials in a three-day seminar held at the site. We would ask these officials to develop potential solutions to the identified problems (Phase II). Finally, many of the Phase II officials would discuss the workshop's conclusions with very high-level irrigation and agriculture officials at a shorter two-hour seminar in Kathmandu (Phase III).

The purpose of this phased approach was to learn more about the problems of irrigated agriculture in Nepal, while at the same time demonstrating that irrigation management is an interdisciplinary problem area. We also wanted explicitly to include interdisciplinary problem-solving as a component of the workshop, and in essence give ownership of the solutions to the Phase I and II participants.

With a few exceptions noted below, the workshop did accomplish these goals, and more.

II. CLASSROOM ACTIVITIES

As this was to be a very field-oriented workshop, we spent shorter time in the classroom (four days) than in past DA workshops. This period was devoted to lectures, discussions, and viewing videotapes. We also tried some new team-building exercises which were very successful. During these four days, Dr. Adhikary was often a participant and provided us with valuable feedback. Mr. S.R. Pant (General Manager, Narayani Zone Irrigation Development Project) was very much interested in the workshop and also attended some of these preliminary sessions.

We wanted to learn more about irrigated agriculture in Nepal, and we also wanted to give the participants as much ownership of the workshop as soon as possible. To this end, we asked the Phase I participants to prepare and deliver lectures to all of us on "Problems and Prospects of Irrigation in Nepal," and "Problems and Prospects of Agriculture in Nepal." This idea proved so popular that Mr. N. Ansari (Deputy Director General, Irrigation Department) travelled all the way from Kathmandu to Parwanipur to deliver the irrigation lecture. A very lively discussion followed his presentation. Later, Mr. S.P. Yadav of the Agriculture Department (a Phase I participant) delivered the agriculture lecture, and Mr. R.S.S. Neupane (Phase I

participant) made an excellent case study presentation of his experiences as Water Management Officer of the Jhaj Irrigation Project.

During this first week, we also decided with the participants that every Friday afternoon we would meet back in the classroom for an open-ended formative evaluation of the week's activities. We would also use this time to preview and discuss the priorities for the coming week, and review our findings up to that time. These Friday afternoon sessions continued throughout the workshop and were very fruitful.

III. RECONNAISSANCE

As this workshop was to be an actual DA study of an operating irrigation system, the Reconnaissance took on added importance. We wanted to be sure that we had looked at the entire irrigation system (Sirsia/Dudhaura Irrigation System, 2,000 ha.) and picked our detailed study sites carefully. We therefore spent three full days on our Reconnaissance and quite literally walked the entire system from head to tail, including all the branch canals, and a tubewell system at the tail of one of the canals. We also spent time walking the main canal of a farmer-managed system which is technically in the command area of the government run Sirsia/Dudhaura system. The Reconnaissance really turned out to be very similar to a rapid rural appraisal.

During the Reconnaissance, some of our visual observations made it clear that this system had some very serious problems. For instance, while travelling down the main canal of the Dudhaura system, we saw small groups of 3-4 farmers squatting next to every gate on the main canal. As long as water was in the canal, these farmers would stay right next to the gates. Hours later they were still there. It became obvious that they were there to prevent anyone, either farmer or GON official, from tampering with that gate.

Based on the three-day Reconnaissance, the entire team (WMS II and GON) met and decided that we would concentrate our efforts on the Sirsia system only, and not look at the Dudhaura system. We also agreed that if time permitted, we would also look at the farmer-managed system. We then decided upon the specific sites on Sirsia for detailed analysis and prepared a series of general study questions or hypotheses we wanted to answer. These study questions were organized around three general themes: (1) water control, (2) system management, and (3) production and services. The questions were to be used not as handcuffs to limit our study, but as broad themes to guide our study.

IV. FIELD WORK

The longest portion of the workshop was the actual field studies. The GON and WMS II personnel were not broken into separate teams, but concentrated their efforts as one large team working on the Sirsia system.

The irrigation engineers set flumes in all the main and branch canals. The agricultural engineers conducted ten irrigation evaluations, though not without a great deal of trouble. The engineers (and the farmers!) had extremely unreliable supplies of water and more often than not the water flowing onto a farmer's field would stop before the irrigation was complete. The agronomists conducted soil and water tests, crop surveys, and examined the condition of the plants. The agricultural economists conducted farmer interviews and developed farm budgets using a new, simplified questionnaire

which took only about 30 minutes to complete. The rural sociologists and communication people interviewed the same sample farmers with a "quick and clean" questionnaire, and talked to key informants and irrigation and agriculture officials using a very unstructured interview format. The social scientists also spent a considerable amount of time looking at the social structure of each of the villages.

One of the most useful forms of field data collection was used by all the disciplines - simple observation. During lunchtime, for instance, discipline members would often relate events they had seen that morning while working in the field. One morning, for instance, the irrigation engineers setting flumes noticed one farmer opening a gate on the middle branch canal. He walked away, followed in a few minutes by another farmer who closed the gate. While the engineers continued their work with the flumes, they noticed the first farmer sprinting back along the canal to re-open the gate. This action continued throughout the day.

By telling each other "war stories" such as above, gradually a more informal picture began to emerge concerning issues of water control, system management, and production and services. While the more formalized data collection procedures progressed, simple visual observations by all disciplines contributed a great deal to understanding the Sirsia irrigation system. There were literally dozens of such stories related during the workshop, each one providing information.

V. DATA ANALYSIS/REPORT WRITING

Before leaving for Nepal, the WMS II team decided that due to lack of time, the preliminary case study report prepared for Phase II would be in the form of "bullets." Rather than take time to write an essay in the field, the team decided to present its findings in short, declarative sentences under suitable general headings.

In only three days time we were able to put together a 16 page interdisciplinary case study of the Sirsia irrigation system for presentation to the Phase II officials. The report was divided into four major sections: (1) System Objectives, (2) System Characteristics, (3) System Performance, and (4) System Constraints and Strengths. Included in this report were 12 identified major constraints and 14 major strengths or opportunities.

The work would have been impossible without the portable micro-computer we had brought from the U.S. The computer simplified our work tremendously and gave us flexibility we would not have enjoyed otherwise.

VI. PHASE II

The real heart of the Nepal DA took place during the three day Phase II activities. During this portion of the workshop, high-level GON officials would be given a tour of the system, the Phase I participants would present their findings, and then the Phase II officials would be asked to develop potential solutions to the problems.

For the Phase II people who had arrived in the morning, we showed the videotape of the PBS Nova program describing the Mahaweli Project in Sri Lanka. After the tape, there were some informal, yet lively discussions of the similarities and differences between the Sri Lankan and Nepali experience.

In the early afternoon of February 13, Mr. Bhatta and a number of other Irrigation Department officials did arrive at Parwanipur. After a brief explanation of our schedule change, we all departed for the afternoon field trip.

We stopped at five separate locations along the irrigation system, from the headgates on the river, to the last field on the tail field channel. At each of these locations, one of the Phase I participants would explain to the Director General and others what we had discovered about this part of the system, and how we went about studying it. At each successive stop, Mr. Bhatta appeared more and more interested, and his questions became more frequent. Between the third and fourth stop, one of his assistants reminded him that he had an appointment that afternoon at another irrigation site. As I speak Nepali and was riding in the same car as the Director General, I could quite clearly hear Mr. Bhatta tell his assistant to cancel his appointment and continue the field trip; he said that it was too interesting to leave in the middle of the trip.

By the fifth stop, Mr. Bhatta appeared so enthused that he decided to walk the entire length of the very tail field channel to observe conditions there. He spent the entire time walking that channel talking to three Phase I participants as they described their findings at the tail.

At the end of the walk, the vehicles met us and Mr. Bhatta wanted to know if other projects in Nepal had these same problems. Many in the audience assured him that they did.

As fate would have it, the King of Nepal was in a nearby area this day and wanted some information about rivers and irrigation. Very early in the morning, then, Mr. Bhatta had to leave Parwanipur and join the King. Though we were disappointed by his absence, Mr. Gorkhali (DG, Agriculture Department) had now arrived to join Phase II. He remained throughout the day.

In the morning, we made brief presentations to the Phase II officials on the Development Model, Diagnostic Analysis, and Farmer Involvement. The Phase I participants then took over and made formal presentations of our findings from the field studies. The oral presentations generally followed the outline as presented in the written case study materials.

In the afternoon, WMS II and GON personnel teamed as moderators for the general problem-solving sessions. The general thrust of these discussions revolved around potential solutions to the problem identified by one Phase II official - "The only thing certain about Sirsia is uncertainty."

To increase certainty, some officials suggested that the timing and scheduling of water releases be the responsibility of a tripartite board - farmers, irrigation officials, and agriculture officials. Some stated that despite their great unorganized involvement in the system, the farmers really don't feel that Sirsia is their system. The farmers, therefore, must have both actual and psychological ownership of the system. A specific suggestion was made to train farmers informally for three years in water management, and then simply hand over the Sirsia system to the farmers on an experimental basis. Others picked up this theme and speculated on doing this for all irrigation systems under 1,500 ha. in Nepal. Though other officials pointed out that smaller government-built systems had been turned over to farmers in

the past with poor results, this somewhat radical suggestion generated much discussion throughout the morning.

Other officials, primarily from agriculture, decried the lack of water management training for extension agents and urged that more research and training in this area be conducted. The afternoon session ended with a plea from one of the Phase I participants to emphasize proper management of present systems as the most viable solution.

We compiled a short list of the potential solutions discussed that afternoon. Rather than present them as dogmatic solutions to complex problems, we put them in the form of questions, to generate further discussion and research.

Discussing these issues in the field, where the participants could literally look out the window and see the irrigation system where the study took place, was also a big plus for Phase II. Away from Kathmandu, it seemed that some of the participants were more open and frank in their comments.

VII. PHASE III

Phase III began with brief presentations and open discussion. Then, Mr. Bhatta from irrigation emphasized the importance of the cost factor in any potential solution. He urged greater farmer involvement in irrigation schemes if for no other reason than it would be very cost-effective.

Mr. Gorkhali from agriculture once again emphasized the importance of looking at agricultural production in irrigation systems. In his remarks, Director Brennan stated that it was good to have such a field-oriented workshop away from Kathmandu, but that we all should be looking more at the farmers' responsibility in managing systems.

Concluding remarks were made by Dr. Sainju. He lauded both the Irrigation and Agriculture Departments for working together in the field for five weeks. He stated that properly managing existing systems was the biggest problem in Nepal, and that DAs provide a good forum for studying these management problems. He liked the three general topics we had studied (water control, system management, production and services) but urged everyone present to avoid a bureaucratic approach to solutions. Rather, he suggested looking at farmer-managed systems and the present administrative, political, and social situation in Nepal.

He encouraged the DA method to be used more in Nepal, to make more comparative analyses and understand management problems. He finally suggested that less bureaucracy be used in system management, and more expertise of local farmers be tapped.

VIII. IMPRESSIONS

The Nepal Diagnostic Analysis Workshop was a success. A very interesting system was analyzed and case study materials were produced. The workshop successfully introduced and demonstrated the concepts and procedures of Diagnostic Analysis into Nepal and gave many GON officials the opportunity to work together in developing potential interdisciplinary solutions to real-world irrigation problems. GON now has a better appreciation of what interdisciplinary teams can and cannot accomplish in the field and the nine Phase I

participants provide an excellent base for further irrigation management tasks. Considering that this was the first such workshop conducted in Nepal, I believe that activities went very well.

The new AID Irrigation Management Project in Nepal will use many of the concepts and procedures demonstrated in the DA workshop. It was a very fortuitous coincidence that this project will follow so closely with the DA workshop. We hope that the workshop will contribute at least in some small way to the ultimate success of this project.

B. CU SPECIAL FOCUS:

Report on Workshop on Research Priorities for Irrigation Management in Asia held at the International Irrigation Management Institute, Digana, Kandy, Sri Lanka the week of January 6, 1985

During the week of January 6, 1985 a workshop on research priorities in irrigation was held at the headquarters of the International Irrigation Management Institute (IIMI) near Kandy, Sri Lanka. The workshop was jointly sponsored by IIMI and by Water Management Synthesis II; Cornell took the lead for WMS-II in planning this event with IIMI. The objectives of the workshop were to review the state of research on irrigation management in Asia, and to identify priorities for future research with special emphasis on the role of IIMI as a newly created international research institute.

To set the stage for discussion, six of the participants were asked to prepare and circulate short "think pieces" reflecting their perception of the research priorities. In addition country papers summarizing the research activities on irrigation management were prepared by participants from Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, and Thailand. These papers were presented at the workshop.

As a final preparation for the discussion, participants spent two days in the field in one of three sites obtaining a first hand view of irrigation management problems. One group visited Tamil Nadu to observe the management of small-scale tank projects. A second group visited the Gal Oya project in Sri Lanka to observe main systems management. A third group visited the Pakistan Punjab to observe the management problems below the turn in a large-scale irrigation projects.

The term "irrigation management" itself seems to cause considerable confusion. Irrigation management was defined to include six important processes associated with irrigation: planning and design, construction, operation and maintenance, irrigated farming, performance evaluation, and rehabilitation.

Although the workshop participants were not unanimous in their opinions, four areas of inquiry were identified as being generally beyond the scope of IIMI's program: issues of watershed management, issues of aquifer management, issues of water as a resource for non-agricultural purposes, and long-run political and social consequences of irrigation not closely linked to irrigation management.

There was a general consensus among participants that the priorities for research fell into three areas: a general conceptual understanding of the dynamics of irrigation management, research methodology, and applied field research. The topics discussed under each of these areas can be categorized under the following broad headings:

1. General conceptual understanding of the dynamics of irrigation management.

- a. Development of an analytically useful taxonomy of irrigation.
 - b. Development of a theoretical framework regarding the dynamics of irrigation management and performance.
 - c. Understanding the relationship among irrigation systems.
2. Research methodology
- a. Understanding and measuring systems performance.
 - b. Evaluating the consequences of efforts to improve management.
 - c. Developing improved methodologies for field research.
 - d. Developing procedures for diagnosing the management of an irrigation system.
 - e. Developing simulation models.
 - f. Assessing procedures for action research.
3. Applied field research
- a. Physical dimensions of irrigation management.
 - b. Biological dimensions of irrigation management.
 - c. Human and institutional dimensions of irrigation management.
 - d. Information dimensions of irrigation management.
 - e. Economic and financial dimensions of irrigation management.
 - f. The performance evaluation process of irrigation.
 - g. The rehabilitation process of irrigation.

There was very broad agreement that the major problems in operation and maintenance were not at the farm level or below the turn out (i.e. the water course, field channel, or tertiary channel) but were instead in the main system. However, some participants questioned whether productivity could be substantially increased even by improved management in the main system.

IIMI's comparative advantage lies in its capacity to undertake interdisciplinary research to improve the general conceptual understanding of irrigation management and to improve research methodology. IIMI's field research activities should be chosen to be complementary to those objectives of improving conceptual understanding and methodology.

C. USU SPECIAL FOCUS:

EGYPT WATER USE PROJECT EVALUATION

Code #1-02-066-85

In February and March of 1985 a multidisciplinary team went to Egypt to evaluate the Egyptian Water Use and Management Project. Included in the team were two WMS II physical scientists: Dr. A. Alvin Bishop, Irrigation Engineer; and Dr. Howard Peterson, Agronomist. Also on the team were a social scientist and an economist provided by AID/Washington. The team stayed in Egypt for approximately one month and provided a final report at the termination of their visit.

PROJECT BACKGROUND

The Egypt Water Use and Management Project (EWUP) was funded jointly by the Arab Republic of Egypt and by the United States Agency for International Development (USAID). It was implemented under the auspices of the Ministry of Irrigation's Water Distribution and Irrigation Systems Research Institute and in collaboration with both the Ministry of Irrigation and the Ministry of Agriculture through the Soil and Water Research Institute which provided the project with personnel and services.

The project was designed to contribute critical technological information to the irrigated agricultural sector of Egypt and hence provide an input which would increase the productivity of the sector. The project had two major "internal" objectives: 1) the generation of practical information on the proper use of irrigation water and management of irrigation systems; and 2) the strengthening of institutions which deal with water management research and extension of findings to farmers. The "external" objective of the project was to carry out pilot area operations. This was done with farmers and irrigation system managers in three areas in the country. It was to be demonstrated how to best use both the water and non-water resources to increase farm production.

As designed in the Project Paper, the applied research and extension program is being conducted in three pilot areas that represent three different soil, climatic, social, agronomic and cropping areas of Egypt. One area, Mansuriya, is near Cairo. It grows vegetables, is at the interface of the desert and the Nile Valley (has sandy soils interlain with heavy clay) and farmers can and do work in Cairo. The second area, Kafr El-Sheikh, is near the city of that name in the northern delta. Principal crops are cotton and rice with secondary crops of beans, berseem, corn and wheat. Soils are heavy clay, and drainage and salinity are problems. The third area, El-Minya, is in Upper Egypt near the city of that name. Principal crops are cotton, maize, wheat, sugarcane, beans, and berseem. Soils are clay loam, lighter than delta soils. Irrigation is by gravity, lift or combinations of the two. All three areas are representative of much larger regions with similar conditions. Farm size in all project sites is typical for Egypt with an average size of about three feddans. They also include a few large farms of around 25 feddans.

The grant agreement for the project was signed in September 1976 between GOE and USAID. The Consortium for International Development (CID) was selected as the contractor with the first team members arriving in Egypt in October 1977 followed by the full contract team in January 1978. Through four amendments the project and consultant's contract were extended to December 1984.

EVALUATION METHODOLOGY

The evaluation scope of work called for a multidisciplinary team to conduct the evaluation over a 21-day period including production of a final evaluation report. Several major constraints existed given the time frame: 1) the project has produced a prodigious amount of literature: over 80 technical reports and manuals, a large number of draft working papers, several volumes of TDY reports and memos, all of which required perusal and selective study, in addition to previous evaluation and audit reports and other relevant documentation; 2) the three pilot field sites had to be visited; 3) efforts had to be made to look outside WRC and MOI for relevant institutional connections; and 4) minor attempts at verification of findings, mainly through comparison with non-project documentation were called for. Moreover, the fact that the project has ended meant all CSU team members had departed and, therefore, their perspectives and actual responsibilities had to be reconstructed solely from documentation.

Given these circumstances the team looked upon itself as potential clients who would approach EWUP and WRC to see what could be provided as to new understandings of on-site water management in Egypt and what solution had been developed to respond to identified needs. In assessing the response, team members relied on their own expertise and experience, general tenets in their technical specialties, and the self analysis of WRC and project staff as provided in internal documents and direct conversation.

In terms of its final evaluation of the project's performance, the team weighted its findings against three fundamental questions: 1) what was promised (in terms of applicable research, replicable methodology, increased production, and socio-economic benefits to farmers); 2) what was actually produced, and most important of all; 3) what is indicated as the appropriate next steps for irrigation sector activities in general and USAID support activities, such as EWUP and IMS, in particular.

SUMMARY AND RECOMMENDATIONS

The Egypt Water Use and Management Project (EWUP) was initiated in 1977. The contractor's first team members arrived October 1977 with a full team January 1978. Through four amendments the contract was extended until December 31, 1984.

1. A Final Report was issued in March 1984 although some work is ongoing and a number of technical reports have been issued since that time. The interdisciplinary project identified a number of water management and agricultural production constraints along with practices and

interventions to relax the constraints. Applied research was conducted at three field sites representative of the various crop, soil, water and climatic conditions of Egypt. Practices and interventions were applied as a package and evaluated. The results are contained in 77 technical reports, seven manuals and 115 staff reports.

Recommendation: That WRC/WDRI, as a next stage, be supported in a project to specifically convert methodologies and technologies developed during EWUP into an operational system.

2. A major accomplishment of EWUP was its creation of several site specific interdisciplinary teams, composed of agronomists, economists, engineers and social scientists, who collaborated in the identification, design and implementation of project activities. To assure farmer participation, the EWUP sociologists organized the farmers along each mesqa into Water User Associations to administer water distribution among themselves, be responsible for mesqa maintenance and interface with project technical staff. An important outcome of these activities was the vivid demonstration it provided concerning the feasibility and efficacy of an interdisciplinary approach to water management and the vital role that local Water User Associations can play in the process. MOI now faces the challenge of institutionalizing both this methodology and the role of Water User Associations in a fashion adaptive to extension to large geographic and administrative contexts.

Recommendation: Further considerations should be devoted to establishing an official role, guidelines, and incentives necessary for the organization of WUA's along with a definition of the functional responsibilities and authority of the WUA.

3. An economic review of EWUP activities show that some good reports have been produced but that benefits accruing to the farmer in terms of increased production and income are not well enough established to allow for future projections. However, reports show that there are potentials for water savings and improved efficiency in water use which is a justification per se. All farmers receive some benefits but not all farmers realize the same benefits nor to the same extent. With this high variability of impact and the small number of farmers involved in the EWUP study it is not possible to project the benefits and costs to a national or even a regional level.

Recommendation: The economic cost-benefit of large scale implementation of EWUP findings need to be extrapolated in a pre-feasibility study with respect to the on-farm as well as the national level. Data collection and methodology needs additional emphasis.

4. Precision land leveling was a component of the management practices at all sites. It was effective and accepted by the farmers. As a result of this success there is a separate AID supported Farm Machinery Project in MOA with land leveling for water management as its main objective.

Recommendation: Additional adaptations of methods and equipment to the small farms of Egypt should be explored.

5. Methods for canal lining were evaluated using concrete cast-in-place, concrete pre-cast units, butyl rubber membrane, plastic membrane, plastic membrane with covered cement tiles, and asphalt. The asphalt rapidly deteriorated and the membrane were soon damaged by animal and/or weeds.
Recommendation: Work should continue on water conveyance structures and materials to improve the water delivery system.
6. Replacing the sagia as a method of water management with gravity delivery to the farmers' fields was tested. Eliminating the many sagias with a single pump on the mesqa or by gravity direct from the canal provided gravity flow. The substitution of gravity delivery to the fields coupled with a strong water users association and scientific water control is believed to be replicable and applicable to large areas of Egypt.
Recommendation: An expanded project to further test this management intervention on a large scale. This could be incorporated in the IMS project or stand by itself as a new AID supported activity.
7. The results from the various field sites that demonstrated improvement in crop management was required to gain the benefits from irrigation improvements. One shortcoming of the EWUP study was the lack of data from individual farmer fields. Agronomic improvements and insect control were found to have in general a higher payoff and replicability potential at a lower per feddan cost than some of the irrigation improvement alone. This interprettates to mean that the farmers were in general doing a better job of irrigating than they were doing of the agronomic components.
Recommendation: In an expanded regional project GOE and USAID should direct more resources to assist agronomic interventions such as micro-nutrient application, pest control, improved cultivation practices, calibrating fertilizer tests for nutrient requirements, increasing plant populations and introducing improved varieties. All of these practices are accepted by most farmers. To facilitate the advisory program a service laboratory should be provided. Such a facility would test the soils from the individual farms to determine the fertilizer requirement and the need for soil amendment such as gypsum. Water quality determinations could also be made. Such a laboratory can operate on a mass production basis.
8. A major success of the project was the training program. Some staff members were supported for formal training (9 mo.) in the U.S., others in Egypt. Short course training and field trips were conducted in the U.S. and Egypt. A total of approximately 85 people received practical on-the-job experience. This reservoir of experienced scientists and technicians will serve as a nucleus for an expanded program.
Recommendation: Whenever the EWUP program is extended to a region, the experienced field and main office interdisciplinary staff should be maintained for major inputs into the broadened program. Senior American scientists should be made available on a long-time as well as short-time basis. They should function early during the

implementation and assist in the formulation of work plans. The project should be more closely monitored to ensure compliance and to provide good liaison between agencies.

9. Coordinated implementation of the irrigation and agriculture improvement programs will ensure utilization of the research findings. This coordination between the MOI and MOA is viewed as essential to improving the information transfer for both Ministries.

Recommendation: Strategy for extending the water management lessons learned from EWUP should include a matching program funded in both Ministries (MOI and MOA).

10. The project has essentially achieved its objectives with some exceptions. A "replicable package" as such was not produced. What was produced was a proven procedural package. An interdisciplinary team is in place and functioning. It is not, however, large enough to staff and manage a greatly expanded regional program. A specific methodology and work plan for the extension of the interdisciplinary process has not been completed. These objectives seem to have been unrealistic and unobtainable.

Recommendation: That continual monitoring and periodic review be an integral component of such projects so any need for changes in objective and scope of work are recognized and made through amendments.

VI. COMMITTEES

Project management has identified various issues to be addressed via the committee system. The following information refers to the _____ , chaired by _____ and the _____ chaired by _____.

None reported during this quarter.

VII. ROSTER UPDATE

One contract required WMS II activity is the establishment of a human resource file or a professional roster of persons interested in water management work. The activity is part of the overall management unit of the WMS II Project.

In order to initiate the activity, a standard roster form was developed which would acquire relevant information in the areas of professional competence, education, work experience, availability for overseas assignments, language competence, geographic preferences, and other information. Approximately 400 forms were then sent through AID and the CID systems, as well as Colorado State University, Cornell University and Utah State University. In addition, approximately 100 forms were subsequently sent to persons who made inquiries about the project.

The acquired data were stored on the microcomputer data base system for general usage by the project. Thus, the data were recorded, filed, retrievable, and can be summarized. The computerized roster of water management specialists facilitates the identification and selection of professionals in agronomy, economics, engineering, sociology, Women in Development (WID), and other disciplines for WMS II assignments.

The roster has been used by DA coordinators for Bangladesh (1983), Sri Lanka (1982 and 1983), and India (1984) DA Workshops. In addition, the roster has been used to identify suitable professionals for short-term technical assistance activities overseas.

As of March 31, 1985, approximately 221 persons were listed on the roster. A total entry of 39 in agronomy, 38 in economics, 83 in engineering, and 61 in sociology and other disciplines.

Discipline: AGRONOMY

	<u>NUMBER ROSTERED</u>
<u>Universities</u>	
Bangladesh Agriculture Univ.	1
Colorado State University	8
Iowa State University	1
Metropolitan State Coll.	1
New Mexico State University	1
Oregon State University	4
University of Arizona	2
University of Idaho	1
University of Minn.	4
Government	2
Consulting Firm/Independent	<u>14</u>
Total Rostered	39

DIFFERENT TITLES

Agricultural Scientist - 1
Agronomist - 4
Assistant Plant Physiologist - 1
Assistant Professor - 1
Associate Professor - 2
Computer Advisor - 1
Consultant - 3
Director - 1
Ext. Specialist - 2
General Manager Agriculture - 1
GRA - 2
Head, Ag. & Ext. Educ. - 1
Professor & Director - 1
Professor & Head - 1
Professor - 8
Research Agronomist - 1
Research Associate - 1
Research Scientist - 1
Soil Scientist - 2
Senior Agronomist - 1
Team Leader - 1
No Title - 2

PRIMARY DISCIPLINES

Agricultural Education - 1
Agricultural Ext. Education - 1
Agricultural Science - 1
Agronomy - 6
Agronomy/Crop Production, Plant
Breeding, Weed Control - 1
Agronomy/Plant Physiology - 1
Agronomy/Range Science - 1
Agronomy/Soil & Water Management - 1
Agronomy/Soils, Crops, Irrig. Ag. - 1
Crop Physiology - 1
Crop Production - 1
Crops/Soil Science - 1
Plant Nutrition - 1
Range Science - 1
Soils - 1
Soil Biochemistry - 1
Soil Management - 1
Soil Microbiology - 1
Soil Physics - 1
Soil/Physical Chemistry - 1
Soil Science - 9
Soil/Water Management - 1
Soil/Water Science - 1
Vegetable Crop Production - 2
Weed Science - 1

TERMINAL ACADEMIC DEGREE

Ph.D. - 34
M.S. - 4
B.S. - 1

Discipline: ECONOMICS

NUMBER
ROSTERED

Universities

Cal. State Poly Univ.	1
Clemson University	1
Colorado State University	6
Colo. Water Resource Research Institute	1
Cornell University	1
Delhi University	1
Oregon State University	2
Penn State University	1
South Dakota State University	2
University of Arizona	1
University of Hawaii	2
University of Idaho	2
University of Minnesota	5
University of Wisconsin	1
University of Wyoming	2

Government 1

Consulting Firm/Independent 8

Total Rostered 38

DIFFERENT TITLES

Administrative Manager - 1
Agricultural Economist - 3
Assistant Professor - 2
Assistant Specialist - 1
Associate - 1
Associate Professor - 3
Consultant & Manager - 1
Consultant - 1
Doctoral Candidate - 1
Economist - 1
Ext. Water Resources Specialist - 1
GRA - 1
No title - 2
Professor - 14
Professor of Economics - 1
Research Assistant - 1

PRIMARY DISCIPLINES

Adult Education - 1
Agricultural & Resource Economics - 5
Agricultural Economics - 20
Agricultural Production Economics - 1
Business Administration/Legal Offices - 1
Economics - 1
Farm Management - 1
Farming Systems - 1
Regional Planning - 1
Resource Economics - 2
Socioeconomic Impact Analysis - 1
Urban & Regional Planning - 1
Water Resource Development - 1
Project Design/Evaluation - 1

Research Associate - 2
Research Officer - 1

TERMINAL ACADEMIC DEGREE

Ph.D. - 26
M.A. - 2
M.S. - 7
M.ED. - 1
On.D. - 1
B.S. - 1

Discipline: ENGINEERING

	<u>NUMBER ROSTERED</u>
<u>Universities</u>	
Auburn University	1
Bangladesh Agriculture Univ.	1
Colorado State Univ.	18
Cornell University	2
Indian Institute of Technology	1
K.U. Leuven University	1
Louisiana State Univ.	1
Michigan State Univ.	1
Oregon State University	1
Rutgers University (Cook College)	1
Texas Tech University	1
Utah State University	1
Univ. of Moratuwa	1
University of Arizona	2
University of Arkansas	1
University of Idaho	6
University of Minn.	3
University of Texas	1
University of Wyoming	4
Washington State University	1
Consulting Firm/Independent	29
Government	<u>5</u>
Total Rostered	83

DIFFERENT TITLES

Agricultural Engineer - 2
 Assistant Chief - 1
 Assistant Professor - 8
 Assistant Res. Prof. - 1
 Assoc. Professor - 6
 Budget Analyst - 1
 Civil Engineer - 1
 Consultant - 7
 Consulting Engineer - 2
 Director - 1
 Extension Ag. Engr. - 1
 Geotech. & Materials Engr. - 1
 GRA - 3
 Graduate Teaching Assistant - 1
 Head, Hydrology - 1
 Hydrologist - 1
 Instructor - 1
 Lecturer - 2
 Ph.D. Student/Researcher II - 1
 President - 1
 Professor - 14
 Prof. & Extension Engr. - 1
 Professional Hydrologist - 1
 Professor & Director - 1
 Project Engineer - 1

PRIMARY DISCIPLINES

Ag. Eng./Irrigation & Drainage - 1
 Agricultural & Irrig. Engr. - 2
 Agricultural Engineer - 17
 Civil & Ag. Engineer - 1
 Civil Engineer - 6
 Engineer - 1
 Engineering Construction - 1
 Engineering-Econ. Planning - 2
 Environmental Engr. - 2
 Geotechnical Engineering - 1
 Geotech. & Materials Engr. - 1
 Groundwater Hydrology - 1
 Hydraulics & Water Resources - 4
 Hydrology - 1
 Hydrogeology - 1
 Irrigation - 1
 Irrigation and Drainage - 2
 Irrigation Operations & Maint. - 1
 Irrigation & Waste Resource Engr. - 1
 Irrigation & Water Management - 3
 Irrigation Engr. & Agrif. Mgmt. - 1
 Irrigation Engineer - 4
 Irrigation Equipment - 1
 Irrigation/Open Channel Flow - 1
 Land & Water Mgmt. of Rainfed Ag. - 1

Project Manager - 2
Research Leader/Ag. Engr. - 1
Research Assistant - 3
Research Associate - 5
Research Associate/Lecturer - 1
Scientist - 1
Sr. Engineer - 1
Supervisor - 1
Trng. Res. & Investment Manager - 1
Vice President - 1
Water Resource Engineering - 1
No titles - 4

Mechanical Engineer - 1
On-Farm Water Management - 2
Plant Water Relations - 1
Project Mgmt., Chief of Operations - 1
Soil & Water Conservation - 3
Soil & Water Engineering - 2
Structural Evaluation & Design - 1
Water Management - 1
Water Quality Management - 1
Water Resources Development - 1
Water Resources Management - 2
Water Resources Planning - 1
Water Resources - 2
Water Resources/Hydrology - 2
Water Resource Planning, Development,
and Management - 1
Water System Engineer - 1
Water Use & Management - 1
Watershed Management - 1

TERMINAL ACADEMIC DEGREE

Ph.D. - 41
M.S. - 26
M.E. - 2
B.S. - 14

Discipline: SOCIOLOGY AND OTHERS

	<u>NUMBER ROSTERED</u>
Universities	
Aquinas College	1
Brandeis Univ.	1
Cal St. Poly. University	1
California State University	1
Colorado State University	7
Cornell University	2
Dartmouth Medical School	1
Harvard University	1
Hunter College City Univ.-NY	1
Mass. Inst. Tech.	1
New Mexico State Univ.	1
Rural Dev. Academy Bangladesh	1
Staples Tech. Institute	1
The World Bank	1
University of Arizona	3
University of Cincinnati	1
University of Denver	1
University of Idaho	1
University of Minn.	8
University of Penn.	2
Utah Soil Conservation Commission	1
Washington State University	1
Yale University	1
Government	6
Consulting Firm/Independent	<u>15</u>
Total Rostered	61

<u>DIFFERENT TITLES</u>
Adjunct Professor - 1
Adjunct Assistant Professor - 1
Associate Professor - 7
Associate Professor/Anthropology - 1
Associate - 1
Asst. Professor - 3
Comm. Dev. Specialist - 1
Consultant - 2
Director - 1
Geologist - 1
GRA - 2
Graduate Res. Fellow - 1
GTA - 1
Hydrologist - 1
Instructor - 1
Investments Project Advisor - 1
No Title - 9
Ph.D student - 1
President - 1
Professor & Acting Director - 1
Professor - 9
Program Director - 1
Publications Editor - 1

<u>PRIMARY DISCIPLINES</u>
Administration - 1
Anthropology - 6
Anthropology/Rural Sociology - 2
Applied Anthropology - 1
Applied Social Science - 1
Area Studies - South Asia - 1
Communication & Social Psych. - 1
Community Dev./Organization - 1
Communications - 1
Cultural Anthropology - 1
Development Sociology - 4
Extension Education - 1
Farm Management - 1
Forestry & Remote Sensing - 1
Geography - 3
Geology - 1
Hydrology of Wildland Watersheds - 1
Hydrogeology - 1
Institutional Aspects of Water Management-Public Admin. - 1
Irrigation - 1
Irrigation/Agricultural - 1
Journalism - 2

Research Affiliate - 1
Research Associate - 5
Sr. Consult. Anthropologist - 1
Sr. Hydrologist - 1
Sociologist - 2
Social Survey Researcher - 1
Supervisor & Dist. Manager - 1

Limnology-Water Quality - 1
Mass Communication - 2
Political Science - 1
Range & Forest Watershed Mgmt. - 1
Resource Economics - 1
Silviculture - 1
Social Anthropology - 1
Social Policy Research - 1
Sociohydrology - 1
Sociologist - 6
Social Survey Research - 1
Social/Economic Anthropology - 1
Soil/Water Conservation - 1
Technical Journalism - 1
Third World Ag. Development - 1
Urban & Regional Planning - 1
Water Resources - 2
Watershed Management - 2
Water Resource Management - 1

TERMINAL ACADEMIC DEGREE

Ph.D. - 36 D. Ed - 1
M.S. - 10 B.S. - 3
M.A. - 6 B.A. - 3
M.Ed. - 1
Not specified - 1

VIII. FINANCIAL REPORT

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)QUARTERLY REPORT
FOR PERIOD ENDING MARCH 31, 1985

FISCAL YEAR 1985 ACTIVITIES

ACTIVITY	CODE	UNIV. STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
				THROUGH DEC. 31, 85	CURRENT QUARTER	THROUGH MAR. 31, 85	
ADMINISTRATION:							

WORLDWIDE							
CU ADMINISTRATION	0-02-996-85	CU INIT	\$ 206,932	\$ 38,394	\$ 36,123	\$ 74,517	\$ 132,415
USU ADMINISTRATION	0-02-997-85	USU INIT	233,126	25,165	74,885	100,050	133,076
CSU ADMINISTRATION	0-02-998-85	CSU INIT	231,641	65,070	50,041	115,111	116,530
EPD ADMINISTRATION	0-01-999-85	EPD INIT	191,810	15,007	77,380	92,387	99,423
CLOSED-OUT CU ACTIVITIES	VARIOUS	CU	0	0	(14,415)	(14,415)	14,415
CLOSED-OUT USU ACTIVITIES	VARIOUS	USU	0	0	(3,803)	(3,803)	3,803
CLOSED-OUT CSU ACTIVITIES	VARIOUS	CSU	0	0	(1,328)	(1,328)	1,328
CLOSED-OUT EPD ACTIVITIES	VARIOUS	EPD	0	0	0	0	0
TOTAL ADMINISTRATION			\$ 863,509	\$ 143,636	\$ 218,883	\$ 362,519	\$ 500,990
TECHNICAL ASSISTANCE:							

AFRICA:							
IRRIGATION OVERVIEW	1-02-108-84	USU INIT	\$ 139,300	\$ 88,165	\$ 34,898	\$ 123,063	\$ 16,237
CHAD:							
IRRIGATED AGRIC. ASSESSMENT	1-02-073-85	USU FORM	89,259	0	0	0	89,259
EGYPT:							
EGYPT WATER USE PROJ. EVAL.	1-02-066-85	USU FORM	41,268	0	6,625	6,625	34,643
EL SALVADOR:							
PID PREPARATION	1-02-059-85	CSU INIT	22,500	1,503	22,091	23,594	(1,094)
HAITI:							
IRRIGATION SECTOR SURVEY	1-04-017-84	USU INIT	50,658	40,384	733	41,117	9,541
HONDURAS:							
IRRIGATION DEVEL. PROJECT	1-02-060-85	USU FORM	12,309	960	6,930	7,890	4,419
INDIA:							
MAHARASHTRA IRRIG. T & M	1-02-021-84	USU INIT	415,000	203,077	35,760	238,837	176,163
MADYA PRADESH SOCIO-TECH	1-02-023-84	USU APPR	174,989	17	0	17	174,972
MADYA PRADESH MINOR IRRIG.	1-01-025-84	USU CANC	0	3,974	0	3,974	(3,974)
EVAL. & STRATEGY REVIEW	1-02-103-84	USU INIT	209,716	101,176	56,736	157,912	51,804
WATER BALANCE	1-02-023-85	USU FORM	40,333	0	0	0	40,333
HYDRAULIC CONDUCTIVITY	1-02-024-85	USU FORM	31,750	0	0	0	31,750
RESERVIOR OPERATION	1-02-025-85	USU FORM	36,990	0	0	0	36,990

FISCAL YEAR 1985 ACTIVITIES

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - \			BUDGET BALANCE
					THROUGH DEC. 31, 85	CURRENT QUARTER	THROUGH MAR. 31, 85	
UNIVERSITY CURRICULA	1-02-013-85	USU	INIT	26,472	10,030	0	10,030	16,442
PRIORITY RESEARCH	1-02-014-85	CSU	FORM	113,877	0	0	0	113,877
INDONESIA:								
SSI WORKSHOP & TECH. ASST.	1-02-009-85	CU	INIT	200,658	18,502	36,291	54,793	145,865
JAMAICA:								
PLANNING ACTIVITIES	1-02-007-85	USU	APPR	11,970	0	0	0	11,970
SYSTEMS STUDY	1-02-008-85	USU	APPR	24,822	0	0	0	24,822
JORDAN:								
ADVISORY SERVICES	1-02-028-85	USU	APPR	10,338	0	0	0	10,338
MAURITANIA:								
PEACE CORPS ASSISTANCE	1-02-061-85	CU	APPR	4,930	0	0	0	4,930
MOROCCO:								
PID DEVELOPMENT	1-02-002-85	USU	APPR	47,629	0	0	0	47,629
NEPAL:								
SM/MED SC. IRRIGATION	1-02-067-85	USU	INIT	89,481	0	19,801	19,801	69,680
PAKISTAN:								
COMMAND WATER MANAGEMENT	1-02-114-84	CSU	INIT	774,905	142,909	64,734	207,643	567,262
CURRICULUM DEVELOPMENT	1-02-071-85	CSU	INIT	74,443	0	5,261	5,261	69,182
PERU:								
PLAN MERIS	1-01-112-84	USU	INIT	642,215	75,700	104,843	180,543	461,672
SRI LANKA:								
DESIGN TEAM	1-02-102-84	CSU	INIT	172,000	45,627	76,071	121,698	50,302
LONG TERM WM SPECIALIST	1-01-109-84	CSU	INIT	233,313	80,783	18,376	99,159	134,154
CENTRAL SUPPORT	1-02-003-85	CSU	FORM	73,695	0	7	7	73,688
SOCIOECONOMIC STUDIES	1-02-004-85	CU	APPR	82,672	0	6,607	6,607	76,065
MODEL CALIBRATION	1-02-005-85	USU	APPR	37,600	0	0	0	37,600
SWAZILAND:								
IRRIGATION ASSISTANCE	1-02-029-85	USU	APPR	12,207	0	0	0	12,207
WORLDWIDE:								
MEETING RECURRENT COSTS	1-02-062-85	CU	INIT	51,345	0	987	987	50,358
TOTAL TECHNICAL ASSISTANCE				\$3,948,644	\$ 812,807	\$ 496,751	\$1,309,558	\$2,639,086

TRAINING AND TECHNOLOGY TRANSFER:

BOLIVIA:								
ON-FARM WATER MANAGEMENT	2-01-011-85	USU	APPR	\$ 81,368	\$ 0	\$ 0	\$ 0	\$ 81,368
COURSE SSI - DESIGN	2-14-010-85	USU	FORM	41,333	429	15,418	15,847	25,486
DOMINICAN REPUBLIC:								
ON-FARM WATER MANAGEMENT	2-14-030-85	USU	CANC	9,909	0	0	0	9,909
EQUADOR:								
FINISHING ORIG. TRNG. MOD.	2-03-054-84	USU	INIT	161,176	158,005	872	158,877	2,299
INDIA:								
SENIOR OFFICIALS WORKSHOP	2-04-053-84	USU	INIT	74,337	33,267	459	33,726	40,611
DEM/WORKSHOP OF COMPUTER	2-14-040-85	USU	INIT	57,471	0	0	0	57,471
TECHNOLOGY TRANSFER	2-06-022-85	CSU	FORM	164,971	0	0	0	164,971

FISCAL YEAR 1985 ACTIVITIES

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
					THROUGH DEC. 31, 85	CURRENT QUARTER	THROUGH MAR. 31, 85	
DEVELOPMENT OF HANDBOOKS	2-13-027-85	CSU	INIT	79,956	11,689	8,588	20,277	59,679
INNOVATIVE TEACHING	2-03-012-85	USU	FORM	138,090	0	0	0	138,090
MAIN SYSTEMS TRAINING	2-14-015-85	USU	FORM	65,372	0	0	0	65,372
RAPID APPRASIAL	2-14-016-85	USU	CANCF	75,853	0	0	0	75,853
FARMER ORGANIZATION	2-14-017-85	CU	FORM	81,141	0	26	26	81,115
TRAINING OF TRAINERS	2-14-019-85	CSU	FORM	37,594	0	0	0	37,594
TRAINING MATERIALS	2-13-020-85	CSU	FORM	435,210	0	0	0	435,210
NEPAL:								
DA OF IRRIGATION SYSTEMS	2-02-031-85	CSU	INIT	126,479	11,950	87,400	99,350	27,129
PAKISTAN:								
SENIOR OFFICERS WORKSHOP	2-04-019-84	CSU	INIT	109,626	32,939	57	32,996	76,630
MANAGEMENT TRAINING	2-01-065-85	CSU	FORM	99,881	0	0	0	99,881
SRI LANKA:								
SEMINAR IRRIG. SYS. REHAB. I	2-05-033-85	CSU	INIT	53,030	0	8,244	8,244	44,786
DA WORKSHOP	2-02-006-85	CSU	?	64,620	0	0	0	64,620
WORLDWIDE:								
BROCHURES;NEWSLETTERS;PUBL.	2-12-044-84	CSU	INIT	39,976	24,040	1,901	25,941	14,035
DA TRAINERS WORKSHOP	2-08-040-84	CSU	INIT	29,736	11,694	1,838	13,532	16,204
INSTRUCTORS GUIDE DA WORK.	2-13-042-84	CSU	INIT	24,881	24,968	(183)	24,785	96
IRRIG SYSTEMS MGMT TASK FORCE	2-14-060-84	USU	INIT	44,284	9,505	0	9,505	34,779
MICROCOMPUTER APPLICATIONS	2-10-051-84	CSU	INIT	62,615	57,569	3,315	60,884	1,731
PROFESSIONAL VISITORS	2-11-039-84	CSU	INIT	10,284	6,480	1,095	7,575	2,709
PROFESSIONAL VISITORS	2-11-068-84	CU	INIT	9,673	754	675	1,429	8,244
SURVEY & STRAT. FOR TRAINING	2-09-049-84	CSU	INIT	27,378	13,914	0	13,914	13,464
TASK FORCE,ORGANIZATION SS	2-14-065-84	CU	INIT	20,741	15,559	(7,874)	7,685	13,056
LESSONS LEARNED ISM	2-14-039-85	USU	APPR	103,209	0	780	780	102,429
FRANCH LANGUAGE TRAINING	2-11-041-85	USU	INIT	10,650	0	605	605	10,045
REHABILITATION, GAME	2-13-048-85	CU	INIT	33,444	0	3,903	3,903	29,541
WORKSHOPS LESSONS LEARNED	2-14-049-85	CU	APPR	41,790	0	0	0	41,790
JOINT SEMINAR CURRENT	2-14-050-85	CU	FORM	94,372	345	44,639	44,984	49,388
MICRO COMPUTER WORKSHOP	2-14-032-85	CSU	INIT	59,972	0	1,094	1,094	58,878
TOTAL TRAINING AND TECHNOLOGY TRANSFER				\$2,570,422	\$ 413,107	\$ 172,852	\$ 585,959	\$1,984,463

SPECIAL STUDIES:

INDIA:								
MAIN SYSTEMS CASE STUDY	3-04-043085	USU	INIT	\$ 31,928	\$ 0	\$ 0	\$ 0	\$ 31,928
MOROCCO:								
CASE STUDIES	3-04-043085	USU	APPR	29,433	0	0	0	29,433
NIGER:								
SMALL SCALE IRRIG. & WM	3-04-098-84	CU	FORM	5,508	6,203	(18)	6,185	(677)
TRAD. & DEV. SSI STUDY	3-04-052-85	CU	INIT	42,484	2,226	5,287	7,513	34,971
SRI LANKA:								
REHABILITATION	3-04-097-84	CU	INIT	26,492	18,796	0	18,796	7,696
INTERFACING OFWM - I	3-04-036A85	CSU	INIT	86,390	0	24,587	24,587	61,803

FISCAL YEAR 1985 ACTIVITIES

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
					THROUGH DEC.31,85	CURRENT QUARTER	THROUGH MAR.31,85	
INTERFACING OFWM - II	3-04-036B85	CSU	INIT	130,907	0	0	0	130,907
LANDSAT 85-RAPID RECON.	3-04-038-85	CSU	INIT	34,442	0	4,582	4,582	29,860
THAILAND:								
CASE STUDY	3-04-043B85	USU	INIT	44,067	0	14,820	14,820	29,247
WORLDWIDE:								
COMPAR.ANALY.OF FARM.PARTIC.	3-04-046-83	CU	INIT	17,535	15,469	0	15,469	2,066
SMALL SCALE IRRIGATION	3-04-049-84	CU	INIT	23,404	45,927	3,169	49,096	(25,692)
RURAL EMPLOYMENT	3-04-055-85	CU	INIT	16,150	0	9,565	9,565	6,585
MANAGEMENT INTENSITIES	3-04-056-85	CU	INIT	69,615	8,385	19,293	27,678	41,937
RAPID IRRIG.PROJ.REMOTE SEN.	3-04-042-85	USU	INIT	73,710	0	54	54	73,656
ISM - DEVELOPMENT	3-04-043A85	USU	INIT	87,623	1,014	9,336	10,350	77,273
ISM - WORKSHOP	3-04-043E85	USU	INIT	27,848	0	0	0	27,848
PHASE I - COMP. ANALYSIS	3-04-053-85	CU	FORM	15,031	1	19,559	19,560	(4,529)
PHASE II - COMP. ANALYSIS	3-04-054-85	CU	INIT	97,099	0	0	0	97,099
TOTAL SPECIAL STUDIES				\$ 859,666	\$ 98,021	\$ 110,234	\$ 208,255	\$ 651,411
TOTAL FISCAL YEAR 1985 ACTIVITIES				\$8,242,241	\$1,467,571	\$ 998,720	\$2,466,291	\$5,775,950

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CID / EPD OFFICE
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									

ADMINISTRATION:									
EPD ADMINISTRATION									
0-01-977-85	\$ 32,377.06	10,971.59	1,847.65	0.00	8,903.69	54,099.99	4,474.44	58,574.43	191,810.00
TOTAL UNIVERSITY SUPPORT	\$ 32,377.06	10,971.59	1,847.65	0.00	8,903.69	54,099.99	4,474.44	58,574.43	191,810.00
TECHNICAL ASSISTANCE:									

INDIA:									
MAHA IRR. T&M PROJ.									
1-02-021-84	\$ 0.00	1,487.50	0.00	0.00	0.00	1,487.50	147.26	1,634.76	USU
MADHYA PR. MINOR IRR.									
1-01-025-84	0.00	3,616.50	0.00	0.00	0.00	3,616.50	358.03	3,974.53	USU
SRI LANKA:									
DESIGN TEAM									
1-02-102-84	8,142.30	4,782.01	0.00	0.00	3,554.18	16,478.49	1,455.96	17,934.45	CSU
TOTAL TECHNICAL ASSIST.	\$ 8,142.30	9,886.01	0.00	0.00	3,554.18	21,582.49	1,961.25	23,543.74	0.00
TRAINING AND TECHNOLOGY TRANSFER:									

INDIA:									
SENIOR OFFICER WKSHP.									
2-04-053-84	\$ 0.00	9,811.22	5,172.18	0.00	0.00	14,983.40	1,483.35	16,466.75	USU
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 0.00	9,811.22	5,172.18	0.00	0.00	14,983.40	1,483.35	16,466.75	0.00
TOTAL F/Y 85 ACTIVITIES	\$ 40,519.36	30,668.82	7,019.83	0.00	12,457.87	90,665.88	7,919.04	98,584.92	191,810.00
=====									

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985COLORADO STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									

ADMINISTRATION:									
COLORADO STATE UNIV.									
0-02-998-85	\$ 60,241.63	3,556.52	15,007.78	0.00	28,217.83	107,023.76	8,086.88	115,110.64	231,641.00
EPD ADMINISTRATION									
0-01-999-85	21,590.58	181.48	1,308.51	0.00	8,309.00	31,389.57	2,423.84	33,813.41	CID
CLOSED-OUT ACTIVITIES:									
CSU ADMINISTRATION									
0-02-998-84	(577.37)	0.00	(333.29)	0.00	(327.84)	(1,238.50)	(90.16)	(1,328.66)	0.00
TOTAL UNIVERSITY SUPPORT	\$ 81,254.84	3,738.00	15,983.00	0.00	36,198.99	137,174.83	10,420.56	147,595.39	231,641.00
TECHNICAL ASSISTANCE:									

AFRICA:									
IRRIG. STRAT. PROG.									
1-02-108-84	\$ 8,877.14	868.01	3,255.46	0.00	4,680.20	17,680.81	1,287.06	18,967.87	USU
EL SALVADOR:									
EL SALVADOR PID									
1-02-059-85	6,756.17	3,629.99	5,765.50	0.00	5,806.89	21,958.55	1,635.20	23,593.75	22,500.00
INDIA:									
PRIORITY RESEARCH									
1-02-014-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113,877.00
INDONESIA:									
ASSESSMENT TEAM									
1-02-009-85	13,535.74	9,676.45	104.03	0.00	5,129.57	28,445.79	2,587.54	31,033.33	CU
NEPAL:									
SMALL & MED. IRRIG.									
1-02-067-85	7,449.61	(119.00)	0.00	0.00	1,612.73	8,943.34	869.85	9,813.19	USU
PAKISTAN:									
COMMAND WATER MGMT.									
1-02-114-84	118,915.53	14,775.52	12,178.60	0.00	46,940.93	192,810.58	14,832.22	207,642.80	774,905.00
CURRICULUM DEVEL.									
1-02-071-85	3,469.61	0.00	0.00	0.00	1,249.06	4,718.67	343.49	5,062.16	74,443.00
SRI LANKA:									

COLORADO STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET

LONG TERM WATER MGMT.									
1-01-109-84	48,407.31	4,048.75	16,650.47	5,813.88	16,644.30	91,564.71	7,594.26	99,158.97	233,313.00
DESIGN TEAM									
1-02-102-84	27,295.71	12,256.76	4,023.81	0.00	11,195.34	54,771.62	4,754.65	59,526.27	172,000.00
CENTRAL SUPPORT									
1-02-003-85	0.00	0.00	4.93	0.00	1.08	6.01	0.49	6.50	73,695.00

TOTAL TECHNICAL ASSIST.	\$ 234,706.82	45,136.48	41,982.80	5,813.88	93,260.10	420,900.08	33,904.76	454,804.84	1,464,733.00

TRAINING AND TECHNOLOGY TRANSFER:									

INDIA:									
TECHNOLOGY TRANS.									
2-06-022-85	\$ 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	164,971.00
TRAINING MATERIALS									
2-13-020-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	435,210.00
DEVEL. OF HANDBOOKS									
2-13-027-85	12,733.97	1,163.91	0.00	0.00	5,003.25	18,901.13	1,375.89	20,277.02	79,956.00
TRAINING OF TRAINERS									
2-14-019-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37,594.00
NEPAL:									
DA OF IRRIG. SYST.									
2-02-031-85	40,643.18	18,351.06	14,609.08	0.00	17,864.24	91,467.56	7,882.31	99,349.87	126,479.00
PAKISTAN:									
SENIOR OFFICERS WS.									
2-04-019-84	16,933.74	4,247.11	1,434.64	0.00	8,141.57	30,757.06	2,238.93	32,995.99	109,626.00
MGMT. TRAINING									
2-01-065-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99,881.00
SRI LANKA:									
DA WORKSHOP									
2-02-006-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64,620.00
SEM. IRRIG. REHAB. I									
2-05-033-85	5,650.25	0.00	0.00	0.00	2,034.09	7,684.34	559.37	8,243.71	53,030.00
WORLDWIDE:									
DA TRAINERS WS									
2-08-040-84	8,515.15	0.00	760.00	0.00	3,339.06	12,614.21	918.24	13,532.45	29,736.00
SURVEY & STRAT.									
2-09-049-84	9,073.65	0.00	606.40	0.00	3,276.01	12,956.06	958.32	13,914.38	27,378.00
COMPUTER APPLICATIONS									
2-10-051-84	29,981.27	129.00	10,746.90	2,311.60	13,669.94	56,838.71	4,044.86	60,883.57	62,615.00
PROFESSIONAL VISITORS									
2-11-039-84	2,670.27	2,449.62	71.69	0.00	1,868.97	7,060.55	513.97	7,574.52	10,284.00
BROCHURES, ETC.									
2-12-044-84	11,215.08	478.00	6,086.91	0.00	6,400.80	24,180.79	1,760.22	25,941.01	39,976.00
INSTR. GUIDE FOR WS									
2-13-042-84	16,013.03	0.00	950.00	0.00	6,106.69	23,069.72	1,715.08	24,784.80	24,881.00

COLORADO STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
SMALL SCALE T.F. 2-14-065-84	0.00	496.03	0.00	0.00	178.57	674.60	49.11	723.71	CU
MICRO COMPUTER WS 2-14-032-85	0.00	0.00	750.00	0.00	270.00	1,020.00	74.25	1,094.25	59,972.00
CURRENT RESEARCH 2-14-050-85	1,170.61	919.01	0.00	0.00	459.71	2,549.33	228.75	2,778.08	CU
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TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 154,600.20	28,233.74	36,015.62	2,311.60	68,612.90	289,774.06	22,319.30	312,093.36	1,426,209.00
SPECIAL STUDIES:									
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SRI LANKA:									
INT. ON-FARM WM I 3-04-036A85	\$ 14,054.06	0.00	3,674.15	0.00	5,103.36	22,831.57	1,755.09	24,586.66	86,390.00
INT. ON-FARM WM II 3-04-036B85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	130,907.00
LANDSAT 85 3-04-038-85	1,982.08	0.00	1,537.88	0.00	713.55	4,233.51	348.48	4,581.99	34,442.00
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TOTAL SPECIAL STUDIES	\$ 16,036.14	0.00	5,212.03	0.00	5,816.91	27,065.08	2,103.57	29,168.65	251,739.00
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TOTAL F/Y 85 ACTIVITIES	\$ 486,598.00	77,108.22	99,193.45	8,125.48	203,888.90	874,914.05	68,748.19	943,662.24	3,374,322.00
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CORNELL UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									

ADMINISTRATION:									
CORNELL UNIVERSITY									
0-02-996-85	\$ 34,653.73	3,568.07	6,578.75	0.00	25,281.48	70,082.03	4,435.25	74,517.28	206,932.00
CLOSED-OUT ACTIVITIES:									
CU ADMINISTRATION									
0-02-996-84	(7,607.46)	(829.50)	(190.28)	0.00	(4,934.30)	(13,561.54)	(854.09)	(14,415.63)	0.00

TOTAL UNIVERSITY SUPPORT	\$ 27,046.27	2,738.57	6,388.47	0.00	20,347.18	56,520.49	3,581.16	60,101.65	206,932.00
TECHNICAL ASSISTANCE:									

INDIA:									
IRRIG. SECTOR EVAL.									
1-02-103-84	\$ 6,160.91	4,345.95	10.14	0.00	6,369.39	16,886.39	1,041.18	17,927.57	USU
INDONESIA:									
SM.SC. IRRIG WKSHP.									
1-02-009-85	0.00	0.00	10,068.79	0.00	2,078.68	12,147.47	996.81	13,144.28	200,658.00
MAURITANIA:									
PEACE CORPS ASST.									
1-02-061-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,930.00
PAKISTAN:									
CURRICULUM DEVEL.									
1-02-071-85	0.00	0.00	111.32	0.00	76.37	187.69	11.02	198.71	CSU
PERU:									
PLAN MERIS									
1-01-112-84	2,765.55	3,231.09	315.18	0.00	3,950.47	10,262.29	624.87	10,887.16	USU
SRILANKA:									
SOCIOECON. STUDIES									
1-02-004-85	0.00	3,701.15	0.00	0.00	2,538.98	6,240.13	366.41	6,606.54	82,672.00
WORLDWIDE:									

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CORNELL UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
RECURRENT COSTS									
1-02-062-85	553.11	0.00	0.00	0.00	379.43	932.54	54.76	987.30	51,345.00
TOTAL TECHNICAL ASSIST.	\$ 9,479.57	11,278.19	10,505.43	0.00	15,393.32	46,656.51	3,095.05	49,751.56	339,605.00
TRAINING AND TECHNOLOGY TRANSFER:									
INDIA:									
FARMER ORGAN. WKSHP.									
2-14-017-85	\$ 0.00	0.00	14.77	0.00	10.13	24.90	1.46	26.36	81,141.00
WORLDWIDE:									
SM.SC. TASK FORCE									
2-12-065-84	2,240.46	590.50	820.26	0.00	1,760.60	5,411.82	361.47	5,773.29	20,741.00
PROFES. VISITORS									
2-11-068-84	0.00	71.70	780.34	0.00	493.08	1,345.12	84.35	1,429.47	9,673.00
REHAB. GAME SIMUL.									
2-13-048-85	1,498.92	0.00	1,156.00	0.00	984.36	3,639.28	262.84	3,902.12	33,444.00
LESSONS LEARNED WKSHP.									
2-14-049-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,790.00
JOINT CUR. RES. SEM.									
2-14-050-85	1,465.75	3,183.00	10,100.64	0.00	5,328.88	20,078.27	1,460.19	21,538.46	94,372.00
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 5,205.13	3,845.20	12,872.01	0.00	8,577.05	30,499.39	2,170.31	32,669.70	281,161.00
SPECIAL STUDIES:									
NIGER:									
SM.SC. IRRIG. & WM									
3-04-098-84	\$ 4,419.08	0.00	1.56	0.00	1,327.45	5,748.09	437.64	6,185.73	5,508.00
TRAD. & MOD SM.SC. IRR.									
3-04-052-85	3,955.13	0.00	1,825.36	0.00	1,159.98	6,940.47	572.27	7,512.74	42,484.00
SRI LANKA:									
REHAB. & PARTICI.									
3-04-097-84	9,916.07	0.00	2,894.16	0.00	4,718.22	17,528.45	1,268.21	18,796.66	26,492.00
WORLDWIDE:									
FARMER PARTIC. EXP.									
3-04-046-83	9,036.05	372.70	520.04	0.00	4,557.36	14,486.15	982.95	15,469.10	17,535.00
SM.SC. COMPL.									
3-04-069-84	31,105.03	0.00	2,071.53	0.00	12,634.80	45,811.36	3,284.48	49,095.84	23,404.00

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CORNELL UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
COMP. ANAL. INDIR. INV. 3-04-053-85	10,260.65	0.00	2,191.79	0.00	5,874.46	18,326.90	1,232.79	19,559.69	15,031.00
PHASE II - COMP. ANAL. 3-04-054-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97,099.00
RURAL EMPLOY. & IRR. 3-04-055-85	4,115.75	0.00	2,174.75	0.00	2,651.63	8,942.13	622.76	9,564.89	16,150.00
MGMT. INTENSITIES 3-04-056-85	17,350.98	0.00	302.08	0.00	8,277.40	25,930.46	1,747.65	27,678.11	69,615.00
TOTAL SPECIAL STUDIES	\$ 90,158.74	372.70	11,981.27	0.00	41,201.30	143,714.01	10,148.75	153,862.76	313,318.00
TOTAL F/Y 85 ACTIVITIES	\$ 131,889.71	18,234.66	41,747.18	0.00	85,518.85	277,390.40	18,995.27	296,385.67	1,141,016.00

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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985UTAH STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									

ADMINISTRATION:									
UTAH STATE UNIV.									
0-02-997-85	\$ 55,830.16	1,774.17	12,902.75	0.00	22,562.27	93,069.35	6,980.20	100,049.55	233,126.00
CLOSED-OUT ACTIVITIES:									
USU ADMINISTRATION									
0-02-997-84	(2,681.66)	0.00	0.94	0.00	(857.83)	(3,538.55)	(265.39)	(3,803.94)	0.00
TOTAL UNIVERSITY SUPPORT	\$ 53,148.50	1,774.17	12,903.69	0.00	21,704.44	89,530.80	6,714.81	96,245.61	233,126.00
TECHNICAL ASSISTANCE:									

AFRICA:									
IRRIG. OVERVIEW									
1-02-108-84	\$ 29,282.90	9,892.39	34,118.15	0.00	23,453.90	96,747.34	7,347.49	104,094.83	139,300.00
CHAD:									
IRRIG. AGRIC.									
1-02-073-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89,259.00
EGYPT:									
EWUP EVAL.									
1-02-066-85	0.00	0.00	4,668.50	0.00	1,493.92	6,162.42	462.18	6,624.60	41,268.00
HAITI:									
IRRIG. SECTOR SURVEY									
1-04-017-84	19,531.99	8,242.49	891.71	0.00	9,173.18	37,839.37	3,277.42	41,116.79	50,658.00
HONDURAS:									
STRINGHAM									
1-02-060-85	3,280.19	2,210.79	17.05	0.00	1,762.57	7,270.60	619.10	7,889.70	12,309.00
INDIA:									
SPCID-TECH. FEAS. STUDY									
1-02-023-84	0.00	0.00	12.50	0.00	4.00	16.50	1.24	17.74	174,989.00
MAHARSHTRA IT&M									

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UTAH STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
1-01-021-84 IRRIG.SECTOR EVAL.	73,184.03	51,213.65	34,159.47	10,563.04	50,738.29	219,858.48	17,343.80	237,202.28	415,000.00
1-02-103-84 UNIV.CURRICULA	29,019.01	11,953.07	56,736.09	0.00	31,266.61	128,974.78	11,009.90	139,984.68	209,716.00
1-02-013-85 WATER BALANCE	6,989.12	0.00	79.51	0.00	2,261.96	9,330.59	699.79	10,030.38	26,472.00
1-02-023-85 HYDRAUL.CONDUCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40,333.00
1-02-024-85 RESERVOIR OPER.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31,750.00
1-02-025-85 INDONESIA:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36,990.00
C.U.-ANDY KELLER									
1-02-009-85	1,640.00	5,755.54	59.94	0.00	2,385.75	9,841.23	774.99	10,616.22	CU
JAMAICA:									
PLAN ACTIVITY									
1-02-007-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,970.00
SYSTEM STUDY									
1-02-008-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24,822.00
JORDAN:									
ADVISORY SERV.									
1-02-028-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,338.00
MOROCCO:									
PID DEVELOPMENT									
1-02-002-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47,629.00
NEPAL:									
SM/MED.SC.IRRIG.									
1-02-067-85	0.00	2,738.26	4,300.50	0.00	2,252.40	9,291.16	696.84	9,988.00	89,481.00
PERU:									
PLAN MERIS									
1-01-112-84	13,277.69	16,400.45	89,204.66	0.00	38,042.50	156,925.30	12,730.57	169,655.87	642,215.00
SRI LANKA:									
DESIGN TEAM									
1-02-102-84	21,128.28	8,528.62	1,261.69	0.00	9,893.95	40,812.54	3,424.45	44,236.99	CSU
MODEL CALIB.									
1-02-005-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37,600.00
SWAZILAND:									
IRRIG.ASSIST.									
1-02-029-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,207.00
TOTAL TECHNICAL ASSIST.	\$ 197,333.21	116,935.26	225,509.77	10,563.04	172,729.03	723,070.31	58,387.77	781,458.08	2,144,306.00

BEST AVAILABLE COPY

UTAH STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET

TRAINING AND TECHNOLOGY TRANSFER:									

BOLIVIA:									
SM/SC. COURSE									
2-14-010-85	\$ 5,987.56	0.00	5,180.35	0.00	3,573.73	14,741.64	1,105.62	15,847.26	41,333.00
ON-FARM WA. COURSE									
2-01-011-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81,368.00
DOMINICAN REPUBLIC:									
ON-FARM WA. MGMT.									
2-14-030-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,909.00
EQUADOR:									
FINISH. TRNG. MODULES									
2-03-054-84	105,567.16	1,664.83	4,731.94	0.00	35,828.46	147,792.39	11,084.43	158,876.82	161,176.00
INDIA:									
SENIOR OFFIC. WKSHP.									
2-04-053-84	0.00	2,185.82	9,863.70	0.00	3,855.85	15,905.37	1,353.48	17,258.85	74,337.00
INNOVATIVE TEACH.									
2-03-012-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	138,090.00
MAIN SYS. TRAIN.									
2-14-015-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65,372.00
RAPID APPRAISAL									
2-14-016-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75,853.00
COMPUTER ASSIST. ISM									
2-14-040-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57,471.00
WORLDWIDE:									
IRR. SYS. MGMT. TSK. FOR.									
2-14-060-84	5,188.11	1,492.03	18.00	0.00	2,143.40	8,841.54	663.12	9,504.66	44,284.00
SSI TSK. FOR. -STUTLER									
2-14-065-84	0.00	819.88	17.50	0.00	267.96	1,105.34	82.90	1,188.24	CU
LESSONS LEARNED									
2-14-039-85	0.00	0.00	550.00	0.00	176.00	726.00	54.45	780.45	103,209.00
FRENCH LANG. TRNG.									
2-11-041-85	426.00	0.00	0.51	0.00	136.48	562.99	42.22	605.21	10,650.00
CURRENT RESEARCH IRR.									
2-14-050-85	8,277.63	6,051.43	104.76	0.00	4,618.82	19,052.64	1,615.19	20,667.83	CU

TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 125,446.46	12,213.99	20,466.76	0.00	50,600.70	208,727.91	16,001.41	224,729.32	863,052.00

SPECIAL STUDIES:

WORLDWIDE:

BEST AVAILABLE COPY

UTAH STATE UNIVERSITY
FISCAL YEAR 1985 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
REMOTE SENS.SYS. 3-04-042-85	\$ 0.00	38.18	0.00	0.00	12.22	50.40	3.78	54.18	73,710.00
MAIN SYS.-ISM DEV. 3-04-043A85	6,047.00	941.68	305.26	0.00	2,334.06	9,628.00	722.10	10,350.10	87,623.00
MAIN SYS.-THAILAND 3-04-043B85	1,063.00	0.00	9,381.19	0.00	3,342.14	13,786.33	1,033.97	14,820.30	44,067.00
MAIN SYS.-MOROCCO 3-04-043C85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29,433.00
MAIN SYS.-INDIA STDY. 3-04-043D85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31,928.00
MAIN SYS.-ISM WKSHP. 3-04-043E85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27,848.00
TOTAL SPECIAL STUDIES	\$ 7,110.00	979.86	9,686.45	0.00	5,688.42	23,464.73	1,759.85	25,224.58	294,609.00
TOTAL F/Y 85 ACTIVITIES	\$ 383,038.17	131,903.28	268,566.67	10,563.04	250,722.59	1,044,793.75	82,863.84	1,127,657.59	3,535,093.00

BEST AVAILABLE COPY

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)QUARTERLY REPORT
FOR PERIOD ENDING MARCH 31, 1985PRIOR YEARS ACTIVITIES NOT CLOSED-OUT

ACTIVITY	CODE	UNIV. STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
				THROUGH DEC. 31, 85	CURRENT QUARTER	THROUGH MAR. 31, 85	
ADMINISTRATION:							

WORLDWIDE:							
CSU ADMINISTRATION	0-02-998-83	CSU	COMP \$ 281,382	\$ 281,317	\$ 0	\$ 281,317	\$ 65
OVERALL ADMINISTRATION	0-01-999-83	EPD	COMP 145,937	145,778	0	145,778	159
CID ADMINISTRATION			COMP 0	3,071	0	3,071	(3,071)
TOTAL ADMINISTRATION			\$ 427,319	\$ 430,166	\$ 0	\$ 430,166	\$ (2,847)
TECHNICAL ASSISTANCE:							

BANGLADESH:							
WATER MANAGEMENT SYSTEMS	1-02-015-82	CU	COMP \$ 154,287	\$ 106,859	\$ 0	\$ 106,859	\$ 47,428
BAU COLLABORATION TEAM	1-03-030-82	CSU	COMP 84,243	66,957	0	66,957	17,286
WATER MGMT.SYS.PROJ.PAPER	1-02-072-84	CU	COMP 20,719	20,440	9,904	30,344	(9,625)
BURMA:							
WAKEMA PUMP SCHEME STUDY	1-02-036-84	CU	TERM 4,759	4,358	0	4,358	401
DOMINICAN REPUBLIC:							
WATER MANAGEMENT SPEC.	1-02-110-84	CSU	COMP 26,813	16,903	2,188	19,091	7,722
WEED CONTROL SPECIALIST	1-02-091-84	USU	FINI 3,354	3,117	0	3,117	237
EL SALVADOR:							
EVALUATION TEAM	1-02-107-84	CID	COMP 107,449	107,089	0	107,089	360
INDIA:							
WATER MANAGEMENT & TRAINING	1-02-020-82B	USU	COMP 22,802	24,025	0	24,025	(1,223)
DEVELOPMENT OF SOLUTIONS	1-02-024-82	CSU	COMP 63,936	61,219	0	61,219	2,717
HILL AREA LAND & WATER DEV	1-02-013-83	CU	COMP 140,949	43,049	(46)	43,003	97,946
DA WORKSHOP PLANNING	1-02-044-83	CSU	COMP 28,149	31,718	0	31,718	(3,569)
INSTITUTIONAL ANALYSIS	1-02-047-83	CID	COMP 32,647	21,498	0	21,498	11,149
INSTITUTIONAL ANALYSIS	1-02-053-83	USU	FINI 26,725	0	0	0	26,725
MAHARASHTRA MINOR IRRIG.	1-02-018-84	USU	FINI 171,970	160,991	96	161,087	10,883
HILL IRRIG.PROJ. PREP.II	1-02-074-84	CU	FINI 61,218	95,638	16,134	111,772	(50,554)
CURRICULUM DEVELOPMENT	1-02-094-84	CSU	COMP 10,682	10,991	0	10,991	(309)

PRIOR YEARS ACTIVITIES NOT CLOSED-OUT

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
					THROUGH DEC.31,85	CURRENT QUARTER	THROUGH MAR.31,85	
SHORT COURSE	1-02-100-84	USU	FINI	84,388	68,112	7,875	75,987	8,401
INDONESIA:								
ROAD'S TDY	1-02-030-83	CSU	COMP	14,408	16,205	0	16,205	(1,797)
SMALL SCALE IRRIG. & MGMT.	1-02-011-84	USU	INIT	54,468	141,129	10,652	151,781	(97,313)
JORDAN:								
IRRIGATION SECTOR STUDY	1-04-013-84	USU	FINI	31,429	19,207	0	19,207	12,222
SR. ON FARM WM ADVISOR	1-02-014-84	USU	INIT	4,767	2,684	3,160	5,844	(1,077)
PAKISTAN:								
WM (CWM) MEETING	1-02-029-83B	CSU	COMP	9,931	3,168	0	3,168	6,763
MAYFIELD'S TDY	1-02-040-83	USU	COMP	15,666	15,504	0	15,504	162
LONG-TERM STRATEGIES	1-02-101-84	USU	FINI	9,369	1,857	0	1,857	7,512
COMMAND AREA MANAGEMENT	1-02-106-84	USU	FINI	16,068	14,007	(92)	13,915	2,153
PERU:								
SPECIAL STUDY	1-04-027-82	USU	FINI	93,755	71,314	0	71,314	22,441
EXPANSION OF IRRIG. SYSTEMS	1-02-035-84	USU	FINI	53,681	57,959	2,070	60,029	(6,348)
SENEGAL:								
BAKEL SMALL IRRIG.PERIMETER	1-02-033-84	USU	APPR	56,681	0	0	0	56,681
SRI LANKA:								
FARMER ORGANIZATION PROG.	1-02-007-84	CU	FINI	64,466	63,439	207	63,646	820
WATER MGMT. CENTRAL SUPPORT	1-01-022-84	CSU	FINI	58,984	62,431	3,939	66,370	(7,386)
TANZANIA:								
TANZANIA IRRIG. STUDY	1-02-082-84	USU	FINI	12,567	11,760	0	11,760	807
WORLDWIDE:								
WATER RESOURCE ECON.	1-02-042-83	CSU	COMP	19,703	19,595	0	19,595	108
TOTAL TECHNICAL ASSISTANCE				\$1,561,033	\$1,343,223	\$ 56,087	\$1,399,310	\$ 161,723

TRAINING AND TECHNOLOGY TRANSFER:

AFRICA:								
AFRICA WORKSHOP	2-14-113-84	CSU	FINI	\$ 14,333	\$ 14,213	\$ 0	\$ 14,213	\$ 120
BANGLADESH:								
DA WORKSHOP	2-02-007-82	CSU	COMP	219,174	234,248	0	234,248	(15,074)
BOLIVIA:								
TARIJA SHORT COURSE	2-01-095-84	CU	FINI	64,995	5,168	64	5,232	59,763
EQUADOR:								
EQUIVAR VIDEO	2-03-054-83	USU	INIT	204,837	204,695	0	204,695	142
INDIA:								
SENIOR OFFICIALS	2-04-007-83	USU	TERM	1,054	1,054	0	1,054	0
WARERCOURSE HANDBOOKS	2-13-025-82	CSU	COMP	15,188	20,217	0	20,217	(5,029)
DA WORKSHOP MADYA PRADESH	2-02-031-84	CSU	FINI	135,470	138,227	2,177	140,404	(4,934)
DA WORKSHOP - WID	2-02-090-84	CIO	FINI	21,980	5,530	0	5,530	16,450
INDONESIA:								

PRIOR YEARS ACTIVITIES NOT CLOSED-OUT

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	EXPENDITURES - \			BUDGET BALANCE
					THROUGH DEC. 31, 85	CURRENT QUARTER	THROUGH MAR. 31, 85	
DA WORKSHOP	2-02-010-84	CSU	TERM	8,736	8,156	100	8,256	480
NEPAL:								
DA WORKSHOP PLANNING	2-02-003-84	CSU	FINI	21,842	21,741	1,026	22,767	(925)
PHILIPPINES:								
VIDEO PRODUCTION	2-03-049-83	CU	CANC	8,122	2,950	0	2,950	5,172
SRI LANKA:								
DA WORKSHOP	2-02-028-83	CSU	COMP	121,475	120,441	0	120,441	1,034
VIDEO PRODUCTION	2-03-048-83	CU	COMP	8,122	0	0	0	8,122
THAILAND:								
IMPROVING ALLOCATIONS	2-14-062-83	CID	COMP	44,250	44,221	0	44,221	29
WORLDWIDE:								
SURVEY & STRAT. FOR TRAINING	2-09-019-83	CSU	COMP	34,267	33,441	0	33,441	826
INCREASING WM CAPABILITIES	2-11-020-83	O/ALL	INIT	57,569	50,202	0	50,202	7,367
VIDEOTAPE MODULES	2-03-021-83	CSU	COMP	90,755	90,747	0	90,747	8
COMPUTER APPLICATIONS	2-10-022-83	CSU	COMP	70,020	69,733	0	69,733	287
SHORT TERM NON-DEG.	2-08-056-83	USU	COMP	37,909	27,794	0	27,794	10,115
ICID CONFERENCE	2-04-048-84	CSU	COMP	20,678	20,239	0	20,239	439
FRENCH LANGUAGE TRAINING	2-11-059-84	USU	INIT	10,650	6,003	0	6,003	4,647
SMALL SCALE IRRIG. WORKS	2-14-064-84	CU	FINI	47,163	32,755	0	32,755	14,408
FARMER PARTICIPATION WKSP.	2-14-066-84	CU	FINI	36,193	24,225	0	24,225	11,968
AID/FAO EXPERT CONSUL WM	2-14-067-84	CU	FINI	9,288	14,102	(1,322)	12,780	(3,492)
PLANNING FOR SEMINAR	2-14-075-84	CU	FINI	9,889	6,736	0	6,736	3,153
MAIN SYSTEM MGMT. TASK FORCE	2-06-077-84	CU	FINI	7,557	1,087	0	1,087	6,470
FAO WORKSHOP PARTICIPANTS	2-14-078-84	CID	INIT	26,000	0	9,049	9,049	16,951
DA REVIEW	2-02-080-84	CID	CANC	0	13,654	1,358	15,012	(15,012)
INCREASING WM CAPABILITIES	2-11-081-84	O/ALL	INIT	20,847	14,583	1,661	16,244	4,603
TOTAL TRAINING AND TECHNOLOGY TRANSFER				\$1,368,363	\$1,226,162	\$ 14,113	\$1,240,275	\$ 128,088
SPECIAL STUDIES:								
AFRICA:								
DEV. OF SOCIAL PARAMETERS	3-04-057-83	USU	FINI	\$ 67,039	\$ 55,598	\$ 3,693	\$ 59,291	\$ 7,748
NIGER:								
TRADITIONAL & DEV. SSI	3-04-111-84	CU	INIT	14,825	13,027	6,902	19,929	(5,104)
WORLDWIDE:								
COMMUNICATION OF TECH. TRANS.	3-04-024-83	CSU	COMP	52,783	52,760	0	52,760	23
IRRIG. SYSTEMS MGMT.	3-04-025-83	CSU	COMP	156,507	156,496	51	156,547	(40)
SMALL SCALE IRRIG.	3-04-045-83	CU	INIT	160,697	104,179	0	104,179	56,518
ON-FARM IRRIG. SYSTEMS SEL.	3-04-058-83	USU	INIT	47,146	18,358	0	18,358	28,788
MAIN SYSTEM MANAGEMENT	3-04-059-83	USU	INIT	146,905	102,197	6,621	108,818	38,087
MONITORING PROJECTS	3-04-061-83	USU	POST	18,350	0	0	0	18,350
DA EVALUATION	3-04-063-83	CID	COMP	7,163	0	0	0	7,163

PRIOR YEARS ACTIVITIES NOT CLOSED-OUT

ACTIVITY	CODE	UNIV.	STATUS	APPROVED BUDGET	/ - - E X P E N D I T U R E S - - \			BUDGET BALANCE
					THROUGH DEC.31,85	CURRENT QUARTER	THROUGH MAR.31,85	
DEVELOPMENT OF HANDBOOK	3- - -	USU	TERM	4,615	4,615	0	4,615	0
INTERFACING FARM & MGMT.	3-04-045-84	CSU	INIT	223,239	118,423	(11,458)	106,965	116,274
MAIN SYS.DESIGN, MGMT. REHAB.	3-04-061-84	USU	INIT	221,424	135,448	10,891	146,339	75,085
INTERDISP. IRRIG. SYS. SEL.	3-04-062-84	USU	INIT	62,430	34,562	0	34,562	27,868
MANAGEMENT INTENSITY	3-04-096-84	CU	INIT	77,238	64,659	0	64,659	12,579
PARTIC. COMPL.	3- - -	CU	?	0	15,074	377	15,451	(15,451)
TOTAL SPECIAL STUDIES				\$1,260,361	\$ 875,396	\$ 17,077	\$ 892,473	\$ 367,888
TOTAL PRIOR YEARS ACTIVITIES				\$4,617,076	\$3,874,947	\$ 87,277	\$3,962,224	\$ 654,852

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CID / EDP OFFICE
PRIOR YEAR ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									
ADMINISTRATION:									
CID EXECUTIVE OFFICE									
0- - -83 \$	0.00	3,070.67	0.00	0.00	0.00	3,070.67	0.00	3,070.67	0.00
CLOSED-OUT ACTIVITIES									
CID / EDP									
VARIOUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL UNIVERSITY SUPPORT \$	0.00	3,070.67	0.00	0.00	0.00	3,070.67	0.00	3,070.67	0.00
TECHNICAL ASSISTANCE:									
BANGLADESH:									
WATER MGMT. SYST.									
1-02-015-82 \$	0.00	0.00	9,640.98	0.00	0.00	9,640.98	954.46	10,595.44	10,595.44
WM SYS. PROJ. PAP.									
1-02-072-84	0.00	0.00	9,011.45	0.00	0.00	9,011.45	892.13	9,903.58	CU
EL SALVADOR:									
EVALUATION TEAM									
1-02-107-84A	0.00	0.00	89,888.00	0.00	0.00	89,888.00	9,827.18	99,715.18	107,449.00
INDIA:									
DEV. OF SOLUTIONS									
1-02-024-82	0.00	0.00	3,826.06	0.00	0.00	3,826.06	378.78	4,204.84	4,205.00
HILL AREA									
1-02-013-83	0.00	0.00	1,574.25	0.00	0.00	1,574.25	155.85	1,730.10	1,776.00
INSTITUTIONAL ANALYSIS									
1-02-047-83	0.00	3,353.84	12,608.28	0.00	3,705.68	19,667.80	1,830.39	21,498.19	32,647.00
MAHAR. MINOR IRR. PROJ.									
1-02-018-84	0.00	21,466.59	23,329.65	0.00	3,308.61	48,104.85	4,735.07	52,839.92	USU
HILL IRRIG. PROJ. II									
1-02-074-84	0.00	6,942.84	0.00	0.00	0.00	6,942.84	687.34	7,630.18	CU

CID / EDP OFFICE
PRIOR YEAR ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
SHORT COURSE 1-02-100-84	0.00	7,161.21	0.00	0.00	0.00	7,161.21	708.96	7,870.17	USU
JORDON: IRRIG. SECTOR SURVEY 1-04-013-84	0.00	0.00	7,500.00	0.00	0.00	7,500.00	742.50	8,242.50	USU
PAKISTAN: COMMAND WATER MGMT. 1-02-106-84	0.00	2,608.95	0.00	0.00	0.00	2,608.95	258.29	2,867.24	USU
IRRIG. LONG TERM POL. 1-02-101-84	0.00	749.48	0.00	0.00	0.00	749.48	74.20	823.68	USU
PERU: SPECIAL STUDY 1-04-027-82	0.00	0.00	7,500.00	0.00	0.00	7,500.00	742.50	8,242.50	8,243.00
EXPAN. OF IRRIG. SYS. 1-02-035-84	0.00	0.00	8,148.00	0.00	0.00	8,148.00	806.65	8,954.65	USU
SRI LANKA: WM CENTRAL SUPPORT 1-01-022-84	0.00	3,540.00	0.00	0.00	0.00	3,540.00	350.46	3,890.46	CSU
TOTAL TECHNICAL ASSIST. \$	0.00	45,822.91	173,026.67	0.00	7,014.29	225,863.87	23,144.76	249,008.63	164,915.44
TRAINING AND TECHNOLOGY TRANSFER:									
<hr style="border-top: 1px dashed black;"/>									
BANGLADESH: DA WORKSHOP 2-02-007-82 \$	0.00	0.00	29,435.70	0.00	0.00	29,435.70	2,914.13	32,349.83	32,086.00
INDIA: WATERCOURSE HANDBOOK 2-13-025-82	0.00	2,530.23	0.00	0.00	0.00	2,530.23	250.49	2,780.72	CSU
DA WKSHP. MAOYA PRAD. 2-02-031-84	0.00	12,089.96	0.00	0.00	0.00	12,089.96	1,206.81	13,296.77	CSU
DA WKSHP WID 2-02-090-84	0.00	2,005.82	0.00	0.00	0.00	2,005.82	198.58	2,204.40	21,980.00
THAILAND: IMPROV. ALLOC. 2-14-062-83	0.00	34,909.11	552.56	0.00	5,248.33	40,710.00	3,510.71	44,220.71	44,250.00
PHILIPPINES: VIDEO PRODUCTIONS 2-03-049-84	0.00	2,684.50	0.00	0.00	0.00	2,684.50	265.77	2,950.27	CU
WORLDWIDE: INCREASING WM CAP. 2-11-081-84	0.00	2,011.38	0.00	0.00	0.00	2,011.38	199.13	2,210.51	CSU

CID / EDP OFFICE
PRIOR YEAR ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
FAO WKSHP.PARTICIP. 2-14-078-84	0.00	8,234.17	0.00	0.00	0.00	8,234.17	815.18	9,049.35	26,000.00
TOTAL TRAINING AND TECHNOLOGY TRANSFER \$	0.00	64,465.17	29,988.26	0.00	5,248.33	99,701.76	9,360.80	109,062.56	124,316.00
SPECIAL STUDIES:									

NIGER:									
TRAD. & DEV. SSI 3-04-111-84 \$	0.00	0.00	0.00	5,797.27	0.00	5,797.27	0.00	5,797.27	CU
WORLDWIDE:									
DA EVALUATION 3-04-063-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,163.00
MAIN SYS.DES.,MGMT.REH. 3-04-061-84	0.00	0.00	1,043.25	0.00	0.00	1,043.25	103.25	1,146.50	USU
TOTAL SPECIAL STUDIES \$	0.00	0.00	1,043.25	5,797.27	0.00	6,840.52	103.25	6,943.77	7,163.00

TOTAL PRIOR YEAR ACTIV. \$	0.00	113,358.75	204,058.18	5,797.27	12,262.62	335,476.82	32,608.81	368,085.63	296,394.44
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)

EXPENDITURE REPORT
AS OF MARCH 31, 1985

COLORADO STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
UNIVERSITY SUPPORT ACTIVITIES:									
ADMINISTRATION:									
COLORADO STATE UNIV.									
0-01-998-83	\$ 124,502.99	2,895.48	52,709.92	19,203.61	64,174.35	263,486.35	17,830.73	281,317.08	281,382.00
CSU OVERALL ADM.									
0-01-999-83	78,403.94	6,173.33	13,267.36	2,963.60	35,224.06	136,032.29	9,746.10	145,778.39	145,937.00
TOTAL UNIVERSITY SUPPORT	\$ 202,906.93	9,068.81	65,977.28	22,167.21	99,398.41	399,518.64	27,576.83	427,095.47	427,319.00
TECHNICAL ASSISTANCE:									
BANGLADESH:									
BAU COLLABORATION									
1-03-030-82	\$ 20,928.39	10,207.73	9,208.20	0.00	12,600.29	52,944.61	4,188.10	57,132.71	74,418.00
DOMINICAN REPUBLIC:									
WATER MGMT. SPEC.									
1-02-110-84	7,530.07	2,141.66	3,339.35	0.00	4,683.98	17,695.06	1,395.64	19,090.70	26,813.00
EL SALVADOR:									
EVALUATION TEAM									
1-02-107-84	4,557.50	187.12	309.73	0.00	1,819.56	6,873.91	500.38	7,374.29	CID
INDIA:									
DA PLANNING									
1-02-044-83	17,523.03	4,001.85	158.30	0.00	7,805.94	29,489.12	2,229.49	31,718.61	28,149.00
DEV. OF SOLUTIONS									
1-02-024-82	27,581.70	12,226.30	1,835.33	0.00	10,624.75	52,268.08	4,746.22	57,014.30	59,731.00
EARLY TDY									
1-02-094-84	7,113.51	0.00	311.62	0.00	2,673.04	10,098.17	893.45	10,991.62	10,682.00
INDONESIA:									
OAD TDY									
1-02-030-83	4,527.23	7,360.47	84.03	0.00	2,951.06	14,922.79	1,281.76	16,204.55	14,408.00
SMALL SCALE IRR.									

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COLORADO STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
1-02-011-84	13,698.00	15,736.94	482.10	0.00	10,036.43	39,953.47	3,215.64	43,169.11	CU
PAKISTAN:									
WM (CWM) MEETING									
1-02-029-83B	2,143.48	0.00	0.00	0.00	771.66	2,915.14	253.05	3,168.19	9,931.0
WORLDWIDE:									
WATER RESOURCE ECO.									
1-02-042-83	12,489.75	699.77	251.54	0.00	4,824.03	18,265.09	1,330.66	19,595.75	19,703.0
WM CENTRAL SUPPORT									
1-01-022-84	23,689.53	21,203.02	1,634.96	148.08	10,784.13	57,459.72	5,020.65	62,480.37	58,984.0
TOTAL TECHNICAL ASSIST.	\$ 141,782.19	73,764.86	17,615.16	148.08	69,574.87	302,885.16	25,055.04	327,940.20	302,819.0
TRAINING AND TECHNOLOGY TRANSFER:									
AFRICA:									
AFRICA									
2-14-113-84	\$ 4,929.51	4,659.35	89.35	0.00	3,484.15	13,162.36	1,050.77	14,213.13	14,333.0
BANGLADESH:									
DA WORKSHOP									
2-02-007-82	91,120.64	38,550.56	13,343.23	790.00	43,310.12	187,114.55	14,783.41	201,897.96	187,088.0
INDIA:									
WATERCOURSE HAND									
2-13-025-82	9,254.38	2,524.92	56.50	0.00	4,260.89	16,096.69	1,340.12	17,436.81	15,188.0
DA WORKSHOP									
2-02-031-84	61,870.98	23,774.16	7,200.22	0.00	24,326.58	117,171.94	9,934.91	127,106.85	135,470.0
WID DA WORKSHOP									
2-02-090-84	0.00	783.30	1,572.06	0.00	737.97	3,093.33	233.18	3,326.51	CID
INDONESIA:									
DA WORKSHOP									
2-02-010-84	2,848.70	890.31	1,954.80	0.00	1,998.53	7,692.34	563.69	8,256.03	8,736.0
NEPAL:									
DA WORKSHOP PLAN.									
2-02-003-84	6,963.39	7,379.40	1,566.13	0.00	5,253.93	21,162.85	1,604.59	22,767.44	21,842.0
SRI LANKA:									
DA WORKSHOP									
2-02-028-83	41,876.78	32,538.65	11,444.43	0.00	25,736.14	111,596.00	8,845.04	120,441.04	121,475.0
WORLDWIDE:									
SURVEY & STRAT.									
2-09-019-83	21,376.93	749.34	1,031.35	0.00	7,991.12	31,148.74	2,292.60	33,441.34	34,267.0
VIDEOTAPE MODULES									
2-03-021-83	33,483.33	17,850.43	13,524.80	0.00	19,229.91	84,088.47	6,658.67	90,747.14	90,755.0
COMPUTER APPLICATIONS									

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COLORADO STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

D E S C R I P T I O N	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
2-10-022-83 INCREASING WM CAP.	33,735.65	454.56	7,589.23	9,474.64	14,342.93	65,597.01	4,136.16	69,733.17	70,020.00
2-11-020-83 ICID CONFERENCE	4,211.39	8,101.62	2,867.00	0.00	4,878.00	20,058.01	1,547.90	21,605.91	29,857.00
2-04-048-84 FARMER PART. WORK	13,416.43	0.00	456.05	0.00	4,994.10	18,866.58	1,373.38	20,239.96	20,678.00
2-14-066-84 INCREASING WM CAP.	0.00	1,943.50	0.00	0.00	699.63	2,643.13	192.41	2,835.54	CU
2-11-081-84	1,300.60	0.00	0.00	0.00	468.21	1,768.81	128.76	1,897.57	20,847.00
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TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 326,388.71	140,200.10	62,695.15	10,264.64	161,712.21	701,260.81	54,685.59	755,946.40	770,556.00
SPECIAL STUDIES:									
<hr/>									
WORLDWIDE:									
COMM.FOR TECH.TRAN. 3-04-024-83	\$ 34,812.52	594.50	754.90	0.00	13,018.29	49,180.21	3,580.03	52,760.24	52,783.00
UTAH-MAIN SYS.MGMT. 3-04-059-83	10,005.78	0.00	0.00	0.00	3,602.08	13,607.86	1,180.56	14,788.42	14,716.00
SMALL SCALE IRRIG. 3-04-045-83B	0.00	2,341.00	0.00	0.00	843.00	3,184.00	231.76	3,415.76	3,416.00
IRRIGATION SYSTEMS 3-04-025-83	99,136.32	7,207.94	1,019.12	0.00	38,393.09	145,756.47	10,790.18	156,546.65	156,507.00
INTERFAC.FARM & MGMT. 3-04-045-84	60,555.77	10,090.42	3,165.32	0.00	25,845.91	99,657.42	7,307.34	106,964.76	223,239.00
MAIN SYS. DESIGN 3-04-061-84	18,523.93	0.00	81.56	0.00	6,697.97	25,303.46	1,933.68	27,237.14	USU
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TOTAL SPECIAL STUDIES	\$ 223,034.32	20,233.86	5,020.90	0.00	88,400.34	336,689.42	25,023.55	361,712.97	450,661.00
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TOTAL PRIOR YEARS ACTIV.	\$ 894,112.15	243,267.63	151,308.49	32,579.93	419,085.83	1,740,354.03	132,341.01	1,872,695.04	1,951,355.00
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CORNELL UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
TECHNICAL ASSISTANCE:									
BANGLADESH:									
WATER SYS. PROJ.PAP.									
1-02-015-82	\$ 27,521.15	22,515.17	12,156.38	1,695.00	26,218.92	90,106.62	6,157.08	96,263.70	143,692.00
BAU COLLAB.									
1-03-030-82	2,779.38	3,561.09	0.00	0.00	2,856.21	9,196.68	627.71	9,824.39	9,825.00
WM SYS.PROJ.PAPER									
1-02-072-84	11,966.29	0.00	1,364.46	545.00	5,244.81	19,120.56	1,319.74	20,440.30	20,719.00
BURMA:									
WAKEMA PUMP SCHEME									
1-02-036-84	2,914.48	0.00	0.96	0.00	1,154.56	4,070.00	288.63	4,358.63	4,759.00
INDIA:									
HILL IRRIGATION									
1-02-013-83	7,990.91	3,003.70	7,895.66	0.00	8,098.84	26,989.11	1,870.14	28,859.25	126,759.00
HILL IRRIG. II									
1-02-074-84	12,346.77	7,649.09	286.68	0.00	8,808.65	29,091.19	2,007.97	31,099.16	61,218.00
INDONESIA:									
SMALL SCALE O & M									
1-02-011-84	17,222.95	22,019.20	4,944.11	0.00	25,897.86	70,084.12	4,374.44	74,458.56	54,468.00
PERU:									
EXP.SM.&MED.IRR.SYS.									
1-02-035-84	1,260.09	1,239.02	1,582.73	0.00	1,904.21	5,986.05	404.10	6,390.15	USU
SRI LANKA:									
FARMER ORGANIZATION									
1-02-007-84	18,260.41	20,013.51	883.57	0.00	20,612.11	59,769.60	3,876.59	63,646.19	64,466.00
TOTAL TECHNICAL ASSIST.	\$ 102,262.43	80,000.78	29,114.55	2,240.00	100,796.17	314,413.93	20,926.40	335,340.33	485,906.00

TRAINING AND TECHNOLOGY TRANSFER:

BOLIVIA:

TARIJA SHORT COURSE

2-01-095-84 \$ 0.00 0.00 65.52 0.00 44.95 110.47 6.49 116.96 64,955.00

INDONESIA:

FAO/AID EXP.CONSL

CORNELL UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
2-14-067-84	1,811.42	6,169.31	27.33	0.00	3,979.06	11,987.12	792.80	12,779.92	9,228.00
PAKISTAN:									
CSU SUMMER WKSHP.									
2-11-081-84	3,072.00	0.00	0.00	0.00	732.67	3,804.67	304.13	4,108.80	0/ALL
PHILIPPINES:									
VIDEO PRODUCTION									
2-03-049-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,122.00
SRI LANKA									
VIDEO PRODUCTION									
2-03-048-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,122.00
WORLDWIDE:									
SUMMER INTERNSHIP									
2-11-020-83	3,744.00	4,257.90	0.00	0.00	1,600.38	9,602.28	792.19	10,394.47	9,475.00
SMALL SCALE WKSHP.									
2-14-064-84	9,496.61	716.00	10,905.45	0.00	9,547.16	30,665.22	2,090.69	32,755.91	47,163.00
PARTIC. WKSHP.									
2-14-066-84	4,030.30	40.00	7,571.57	0.00	6,795.55	18,437.42	1,152.55	19,589.97	36,193.00
CURR. RES. SEMINAR									
2-14-075-84	4,079.62	0.00	2.85	0.00	2,249.85	6,332.32	404.16	6,736.48	9,889.00
MA.SYS.MGMT.TSK.FOR.									
2-14-077-84	0.00	609.00	0.00	0.00	417.78	1,026.78	60.29	1,087.07	7,557.00
<hr style="border-top: 1px dashed black;"/>									
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 26,233.95	11,792.21	18,572.72	0.00	25,367.40	81,966.28	5,603.30	87,569.58	200,704.00
SPECIAL STUDIES:									
<hr style="border-top: 1px dashed black;"/>									
NIGER:									
TRAD.& DEV.SM.SC.SYS.									
3-04-111-84	\$ 5,204.06	3,133.52	2,528.05	0.00	2,191.44	13,057.07	1,075.70	14,132.77	14,825.00
WORLDWIDE:									
PARTIC. COMPL.									
3-04-070-84	8,568.60	0.00	2,370.70	0.00	3,428.94	14,368.24	1,082.99	15,451.23	0.00
SMALL SCALE									
3-04-045-83	45,919.41	15,661.62	4,347.33	0.00	28,307.56	94,235.92	6,526.91	100,762.83	157,281.00
MANAGE. INTENSITY									
3-04-096-84	39,041.36	415.38	751.73	0.00	20,470.29	60,678.76	3,980.64	64,659.40	77,238.00
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TOTAL SPECIAL STUDIES	\$ 98,733.43	19,210.52	9,997.81	0.00	54,398.23	182,339.99	12,666.24	195,006.23	249,344.00
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TOTAL PRIOR YEARS ACTIV.	\$ 227,229.81	111,003.51	57,685.08	2,240.00	180,561.80	578,720.20	39,195.94	617,916.14	935,954.00
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985UTAH STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
TECHNICAL ASSISTANCE:									

DOMINICAN REPUBLIC:									
WEED CONTROL SPEC.									
1-02-091-84	\$ 674.21	1,510.79	1.16	0.00	699.57	2,885.73	231.60	3,117.33	3,354.00
INDIA:									
HILL AREA LAND & W.									
1-02-013-83	0.00	841.39	7,726.17	0.00	2,998.65	11,566.21	848.18	12,414.39	12,414.00
WATER MGMT. TRAIN.									
1-02-020-82B	0.00	4,121.07	12,459.50	0.00	5,803.20	22,383.77	1,641.49	24,025.26	22,802.00
INSTIT. ANALYSIS									
1-02-053-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26,725.00
MAHARASHTRA MIP									
1-02-018-84	16,845.82	25,221.57	33,793.13	0.00	24,275.37	100,135.89	8,110.83	108,246.72	171,970.00
INDIA SHORT COURSE									
1-02-100-84	14,303.13	10,059.91	23,413.61	0.00	15,288.53	63,065.18	5,051.71	68,116.89	84,388.00
HILL AREA LND. & WA.									
1-02-074-84	5,315.28	14,750.81	30,945.25	0.00	16,323.63	67,334.97	5,707.97	73,042.94	CU
INDONESIA:									
SM. SC. IRRIG. & MGMT.									
1-02-011-84	7,487.45	15,634.52	827.55	0.00	7,663.85	31,613.37	2,539.47	34,152.84	CU
JORDAN:									
IRRIG. SECTOR SUR.									
1-04-013-84	6,344.74	981.57	300.21	0.00	2,440.49	10,067.01	897.78	10,964.79	31,429.00
ON-FARM WM SPEC.									
1-02-014-84	1,439.84	360.29	2,318.31	0.00	1,317.90	5,436.34	407.73	5,844.07	4,767.00
PAKISTAN:									
MAYFIELD									
1-02-040-83	0.00	4,987.20	5,606.00	0.00	3,707.62	14,300.82	1,203.73	15,504.55	15,666.00
LONG-TERM STRAT.									
1-02-101-84	0.00	0.00	728.25	0.00	233.04	961.29	72.10	1,033.39	9,369.00
COMMAND AREA MGMT.									
1-02-106-84	0.00	1,723.55	6,062.50	0.00	2,491.54	10,277.59	770.82	11,048.41	16,068.00
PERU:									

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UTAH STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
SPECIAL STUDY						0.00		0.00	
1-04-027-82	31,541.30	6,290.89	6,179.68	0.00	14,083.80	58,095.67	4,976.06	63,071.73	85,512.
EXPAN.OF IRR.SYS.									
1-02-035-84	0.00	10,585.54	20,602.80	0.00	9,980.27	41,168.61	3,516.67	44,685.28	53,681.
SENEGAL:									
BAKEL IRR.PER.ASS'T.									
1-02-033-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56,681.
TANZANIA:									
IRRIG. STUDY						0.00		0.00	
1-02-082-84	2,879.68	279.61	5,082.58	0.00	2,637.40	10,879.27	880.74	11,760.01	12,567.
TOTAL TECHNICAL ASSIST.	\$ 86,831.45	97,348.71	156,046.70	0.00	109,944.86	450,171.72	36,856.88	487,028.60	607,393.
TRAINING AND TECHNOLOGY TRANSFER:									
BOLIVIA:									
TARIJA SHORT COURSE									
2-01-095-84	\$ 1,487.98	2,046.78	46.93	0.00	1,146.14	4,727.83	388.07	5,115.90	CU
EQUADOR:									
EQUAVIR VIDEOS									
2-03-054-83	97,022.50	9,519.05	34,432.22	0.00	49,340.82	190,314.59	14,380.29	204,694.88	204,837.
INDIA:									
SENIOR OFFICIALS									
2-04-007-83	0.00	0.00	727.50	0.00	254.63	982.13	72.02	1,054.15	1,054.
WORLDWIDE:									
INCREASING WM CAP.									
2-11-020-83	6,683.20	5,706.36	86.08	0.00	4,366.47	16,842.11	1,360.04	18,202.15	18,237.
SHORT TERM TRAIN.									
2-08-056-83	11,521.95	1,533.00	6,532.00	0.00	6,267.82	25,854.77	1,939.11	27,793.88	37,909.
FRENCH LANG.TRAIN.									
2-11-059-84	3,211.00	0.00	1,019.67	0.00	1,353.81	5,584.48	418.84	6,003.32	10,650.
PARTIC.WKSHP.									
2-14-066-84	0.00	1,268.00	0.00	0.00	405.76	1,673.76	125.53	1,799.29	CU
INCREASING WM CAP.									
2-11-081-84	0.00	5,573.10	83.65	0.00	1,810.16	7,466.91	560.02	8,026.93	EDP
DA REVIEW-BRAD PARLIN									
2-02-080-84	6,029.78	4,419.62	33.95	0.00	3,354.67	13,838.02	1,173.52	15,011.54	CID
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 125,956.41	30,065.91	42,962.00	0.00	68,300.28	267,284.60	20,417.44	287,702.04	272,687.

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UTAH STATE UNIVERSITY
PRIOR YEARS ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE	APPROVED ACTIVITY BUDGET
SPECIAL STUDIES:									
AFRICA:									
DEV.OF SOCIAL PAPAM. 3-04-057-83	\$ 24,650.34	13,577.81	2,735.73	0.00	14,337.36	55,301.24	3,989.82	59,291.06	67,039.00
WORLDWIDE:									
ON-FARM IRRIG.SYS. 3-04-058-83	12,475.53	372.50	89.10	0.00	4,139.88	17,077.01	1,280.78	18,357.79	47,146.00
DEV.OF HANDBOOKS 3- - -83	3,200.75	0.00	51.51	0.00	1,040.72	4,292.98	321.97	4,614.95	4,615.00
MAIN SYS. MGMT. 3-04-059-83	34,237.48	22,354.19	8,186.24	0.00	22,672.27	87,450.18	6,580.26	94,030.44	132,189.00
MONITOR PROJ. TECH. 3-04-061-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18,350.00
MAIN SYS.DES.MGMT. 3-04-061-84	56,694.56	5,001.41	21,338.31	130.50	26,570.97	109,735.75	8,220.39	117,956.14	221,424.00
SEL.OF IRRIG.TECH. 3-04-062-84	22,738.80	873.45	744.33	0.00	7,794.11	32,150.69	2,411.30	34,561.99	62,430.00
TOTAL SPECIAL STUDIES	\$ 153,997.46	42,179.36	33,145.22	130.50	76,555.31	306,007.85	22,804.52	328,812.37	553,193.00
TOTAL PRIOR YEARS ACTIV.	\$ 366,785.32	169,593.98	232,153.92	130.50	254,800.45	1,023,464.17	80,078.84	1,103,543.01	1,433,273.10

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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)QUARTERLY REPORT
FOR PERIOD ENDING MARCH 31, 1985CLOSED-OUT ACTIVITIES

DESCRIPTION	CODE	UNIV.	DATE CLOSED	APPROVED AMOUNT
ADMINISTRATION:				
EPD OFFICE	0-01-999-84	ALL	MAR.31,1985	\$ 151,815
COLORADO ST. UNIV.	0-02-998-84	CSU	MAR.31,1985	238,396
CORNELL UNIV.	0-02-996-83	CU	MAR.31,1985	191,966
CORNELL UNIV.	0-02-996-84	CU	MAR.31,1985	201,968
UTAH ST. UNIV.	0-02-997-83	USU	MAR.31,1985	212,733
UTAH ST. UNIV.	0-02-997-84	USU	MAR.31,1985	228,956
TOTAL ADMINISTRATION				\$ 1,225,834
TECHNICAL ASSISTANCE:				
BANGLADESH				
CONSULTANT, LEGAL	1-03-029-82	CSU	MAR.31,1985	\$ 14,671
SCOPE OF WORK	1-02-006-82	CSU	MAR.31,1985	16,222
CHINA				
BELL'S STUDY TOUR	1-02-038-83	CID	MAR.31,1985	2,617
DOMINICAN REPUBLIC				
PROJECT PAPER (OFWM)	1-02-009-83	USU	MAR.31,1985	92,538
PROJECT PID	1-02-010-82	USU	MAR.31,1985	20,563
HAITI				
IRRIGATION PROJECT EVAL.	1-02-039-83	USU	MAR.31,1985	25,082
INDIA				
CLYMA'S TDY	1-02-035-83	CSU	MAR.31,1985	2,888
EVANS PROJECT PREPERATIONS	1-02-033-83	CSU	MAR.31,1985	12,580
OLSEN'S TDY	1-02-037-83	USU	MAR.31,1985	12,449
WATER MANAGEMENT & TRAINING	1-02-020-82A	CSU	MAR.31,1985	16,901
WM & TRAINING	1-02-014-83	CID	MAR.31,1985	23,710
JORDAN				
REVIEW OF CURRICULUM	1-02-041-82	USU	MAR.31,1985	9,911
MALI				
OFWM SPECIALIST	1-02-006-83	USU	MAR.31,1985	16,421

CLOSED-OUT ACTIVITIES

DESCRIPTION	CODE	UNIV.	DATE CLOSED	APPROVED AMOUNT

PAKISTAN:				
CLYMA'S TDY	1-02-031-83	CSU	MAR.31,1985	8,164
SRI LANKA				
VARIOUS TDY'S	1-02-008-82	CU	MAR.31,1985	67,471
THAILAND				
EQUIPMENT ENGINEER	1-02-005-82	CID	MAR.31,1985	32,011

TOTAL TECHNICAL ASSISTANCE				\$ 374,199
TRAINING AND TECHNOLOGY TRANSFER:				

INDIA				
MEASUREMENT FOR SYS. MGMT.	2-07-026-82	CSU	MAR.31,1985	\$ 17,324
NEPAL				
SMALL SCALE SYSTEMS	2-14-050-83	CU	MAR.31,1985	41,554
SRI LANKA				
DA WORKSHOP - WID	2-02-034-83	CSU	MAR.31,1985	16,387
WORLDWIDE				
BROCHURES; NEWSLETTERS; PUB.	2-12-018-83	CSU	MAR.31,1985	8,422
FAO/AID WORKSHOP PLANNING	2-14-064-83	CU	MAR.31,1985	2,141
START-UP WORKSHOP	2-14-051-83	CU	MAR.31,1985	11,833
START-UP WORKSHOP	2-14-055-83	USU	MAR.31,1985	15,159
WORKSHOP (TECH. & SOC. ASP)	2-04-023-83	CSU	MAR.31,1985	63,243
CONFERENCE	2-14-058-84	USU	MAR.31,1985	5,408
INCREASING WM CAP. INTERN 1	2-11-037-84	CID	MAR.31,1985	6,367
WORKSHOP (TECH & SOC ASP)	2-04-050-84	CSU	MAR.31,1985	44,999

TOTAL TRAINING & TECHNOLOGY TRANSFER				\$ 232,837

TOTAL CLOSED-OUT ACTIVITIES				\$ 1,832,870
				=====

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CID / EDP OFFICE
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE
UNIVERSITY SUPPORT ACTIVITIES:								
ADMINISTRATION:								
CID EXECUTIVE OFFICE								
0-01-999-84	\$ 0.00	702.89	29.13	0.00	0.00	732.02	72.47	804.49
TOTAL UNIVERSITY SUPPORT	\$ 0.00	702.89	29.13	0.00	0.00	732.02	72.47	804.49
TECHNICAL ASSISTANCE:								
CHINA:								
BELL'S TOUR								
1-02-038-83	\$ 0.00	0.00	2,380.84	0.00	0.00	2,380.84	235.70	2,616.54
INDIA:								
WM & TRAINING								
1-02-014-83A	0.00	0.00	10,474.00	0.00	0.00	10,474.00	1,036.93	11,510.93
WM & TRAINING								
1-02-014-83B	0.00	0.00	11,100.00	0.00	0.00	11,100.00	1,098.90	12,198.90
OLSEN'S TOY								
1-02-037-83	0.00	0.00	98.00	0.00	0.00	98.00	9.70	107.70
THAILAND:								
EQUIPMENT ENG.								
1-02-005-82	0.00	0.00	29,128.10	0.00	0.00	29,128.10	2,883.68	32,011.78
TOTAL TECHNICAL ASSIST.	\$ 0.00	0.00	53,180.94	0.00	0.00	53,180.94	5,264.91	58,445.85
TRAINING AND TECHNOLOGY TRANSFER:								
INDIA:								
MEAS. FOR SYS. MGMT.								
2-07-026-82	\$ 0.00	0.00	3,986.88	0.00	0.00	3,986.88	394.70	4,381.58
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 0.00	0.00	3,986.88	0.00	0.00	3,986.88	394.70	4,381.58
TOTAL CLOSED-OUT ACTIV.	\$ 0.00	702.89	57,196.95	0.00	0.00	57,899.84	5,732.08	63,631.92

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985COLORADO STATE UNIVERSITY
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE
UNIVERSITY SUPPORT ACTIVITIES:								
ADMINISTRATION:								
COLORADO STATE UNIV.								
0-02-998-84	\$ 126,946.70	5,889.39	30,638.72	0.00	58,737.71	222,212.52	16,184.01	238,396.53
CSU OVERALL ADM.								
0-01-999-84	88,237.47	1,904.27	13,361.97	0.00	37,261.32	140,765.03	10,246.87	151,011.90
TOTAL UNIVERSITY SUPPORT	\$ 215,184.17	7,793.66	44,000.69	0.00	95,999.03	362,977.55	26,430.88	389,408.43
TECHNICAL ASSISTANCE:								
BANGLADESH:								
SCOPE OF WORK								
1-02-006-82	\$ 5,212.05	5,750.41	75.25	0.00	3,973.58	15,011.29	1,210.25	16,221.54
CONSULTANT LEGAL								
1-03-029-82	5,868.10	4,135.00	0.00	0.00	3,601.12	13,604.22	1,066.96	14,671.18
INDIA:								
WATER MGMT. & TRAIN.								
1-02-020-82A	5,415.10	6,073.40	0.00	0.00	4,135.86	15,624.36	1,276.74	16,901.10
PROJECT PREP-EVANS								
1-02-033-83	4,034.33	4,545.00	0.00	0.00	3,088.55	11,667.88	912.78	12,580.66
CLYMA TDY								
1-02-035-83	1,224.37	739.29	0.00	0.00	706.91	2,670.57	217.65	2,888.22
PAKISTAN:								
CLYMA TDY								
1-02-031-83	2,448.73	3,115.57	0.00	0.00	2,003.15	7,567.45	597.36	8,164.81
TOTAL TECHNICAL ASSIST.	\$ 24,202.68	24,358.67	75.25	0.00	17,509.17	66,145.77	5,281.74	71,427.51

COLORADO STATE UNIVERSITY
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE
<hr style="border-top: 1px dashed black;"/>								
TRAINING AND TECHNOLOGY TRANSFER:								
<hr style="border-top: 1px dashed black;"/>								
INDIA:								
MEASUREMENT SYS								
2-07-026-82	\$ 4,856.07	4,804.55	39.20	0.00	2,133.96	11,833.78	1,108.39	12,942.17
SRI LANKA:								
WID-DA WORKSHOP								
2-02-034-83	6,290.47	5,691.75	20.49	0.00	3,133.46	15,136.17	1,251.05	16,387.22
WORLDWIDE:								
BROCHURES, ETC.								
2-12-018-83	4,921.11	0.00	851.43	0.00	2,078.12	7,850.66	571.48	8,422.14
TECH. & SOC. WKSP								
2-04-023-83	27,852.47	403.35	16,748.17	0.00	13,783.93	58,787.92	4,455.40	63,243.32
TECH. & SOC. WKSP.								
2-04-050-84	26,913.90	3,149.00	994.48	0.00	10,867.46	41,924.84	3,074.68	44,999.52
INC. WM CAP. INT. 1								
2-11-037-84B	4,827.27	0.00	0.00	0.00	1,062.00	5,889.27	477.90	6,367.17
<hr style="border-top: 1px dashed black;"/>								
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 75,661.29	14,048.65	18,653.77	0.00	33,058.93	141,422.64	10,938.90	152,361.54
<hr style="border-top: 1px dashed black;"/>								
TOTAL CLOSDE-OUT ACTIV.	\$ 315,048.14	46,200.98	62,729.71	0.00	146,567.13	570,545.96	42,651.52	613,197.48
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985CORNELL UNIVERSITY
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE
UNIVERSITY SUPPORT ACTIVITIES:								
ADMINISTRATION:								
CORNELL UNIVERSITY								
0-02-996-83	\$ 92,115.52	6,625.08	26,375.55	0.00	54,463.47	179,579.62	12,386.50	191,966.12
CORNELL UNIVERSITY								
0-02-996-84	97,800.64	7,196.69	20,034.63	3,359.00	61,199.53	189,590.49	12,378.16	201,968.65
TOTAL UNIVERSITY SUPPORT	\$ 189,916.16	13,821.77	46,410.18	3,359.00	115,663.00	369,170.11	24,764.66	393,934.77
TECHNICAL ASSISTANCE:								
SRI LANKA:								
VARIOUS TDY'S								
1-02-008-82	\$ 18,858.13	16,876.12	6,865.62	0.00	20,654.21	63,254.08	4,217.39	67,471.47
TOTAL TECHNICAL ASSIST.	\$ 18,858.13	16,876.12	6,865.62	0.00	20,654.21	63,254.08	4,217.39	67,471.47
TRAINING AND TECHNOLOGY TRANSFER:								
NEPAL:								
SM. SC. WKSHP.								
2-14-050-83	\$ 19,760.03	7,057.87	133.11	0.00	11,934.70	38,885.71	2,668.15	41,553.86
WORLDWIDE:								
START UP WORKSHOP								
2-14-051-83	3,598.38	3,604.01	403.44	0.00	3,474.42	11,080.25	752.98	11,833.23
FAO WKSHP. PLAN								
2-14-064-83	771.49	614.71	5.76	0.00	611.39	2,003.35	137.80	2,141.15
TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 24,129.90	11,276.59	542.31	0.00	16,020.51	51,969.31	3,558.93	55,528.24
TOTAL CLOSED-OUT ACTIV.	\$ 232,904.19	41,974.48	53,818.11	3,359.00	152,337.72	484,393.50	32,540.98	516,934.48

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN 4127-C-00-2086-00)EXPENDITURE REPORT
AS OF MARCH 31, 1985UTAH STATE UNIVERSITY
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE
UNIVERSITY SUPPORT ACTIVITIES:								
ADMINISTRATION:								
UTAH STATE UNIV.								
0-01-997-83	\$ 100,394.73	11,304.90	11,017.66	34,916.00	42,951.05	200,584.34	12,149.01	212,733.35
UTAH STATE UNIV.								
0-02-997-84	121,251.36	7,293.96	32,805.53	0.00	51,632.27	212,983.12	15,973.73	228,956.85
TOTAL UNIVERSITY SUPPORT	\$ 221,646.09	18,598.86	43,823.19	34,916.00	94,583.32	413,567.46	28,122.74	441,690.20
TECHNICAL ASSISTANCE:								
DOMINICAN REPUBLIC:								
PROJ.PAPER - OFWM								
1-02-009-83	\$ 7,287.10	23,220.61	33,235.94	0.00	22,310.28	86,053.93	6,484.12	92,538.05
PROJECT PID								
1-02-010-82	4,495.75	4,513.69	5,108.00	0.00	4,941.10	19,058.54	1,504.57	20,563.11
HAITI:								
IRRIG.PROJ.EVAL.								
1-02-039-83	5,511.65	5,077.00	6,630.93	0.00	6,026.85	23,246.43	1,835.97	25,082.40
INDIA:								
OLSEN TOY								
1-02-037-83	7,964.49	247.00	174.23	0.00	2,935.00	11,320.72	1,019.83	12,340.55
JORDAN:								
CURR. DEVELOP.								
1-02-041-82	2,390.32	4,334.13	76.76	0.00	2,380.42	9,181.63	730.24	9,911.87
MALI:								
OFWM SPECIALIST								
1-02-006-83	6,086.40	4,845.93	322.57	0.00	3,939.22	15,194.12	1,227.25	16,421.37
TOTAL TECHNICAL ASSIST.	\$ 33,735.71	42,238.36	45,548.43	0.00	42,532.87	164,055.37	12,801.98	176,857.35

UTAH STATE UNIVERSITY
CLOSED-OUT ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT COSTS	EQUIPMENT	INDIRECT COSTS	TOTAL UNIVERSITY COSTS	CID G & A AND DBA	TOTAL ACTIVITY EXPENSE

TRAINING AND TECHNOLOGY TRANSFER:								

CHILE:								
CONFERENCE								
2-14-058-84	\$ 1,954.54	1,824.06	1.86	0.00	1,209.75	4,990.21	418.24	5,408.45
WORLDWIDE:								
START UP WORKSHOP								
2-14-055-83	5,970.53	4,490.59	0.88	0.00	3,661.70	14,123.70	1,035.74	15,159.44

TOTAL TRAINING AND TECHNOLOGY TRANSFER	\$ 7,925.07	6,314.65	2.74	0.00	4,871.45	19,113.91	1,453.98	20,567.89

TOTAL CLOSED-OUT ACTIV.	\$ 263,306.87	67,151.87	89,374.36	34,916.00	141,987.64	596,736.74	42,378.70	639,115.44
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CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

WATER MANAGEMENT SYNTHESIS II PROJECT
(AID/DAN-4127-C-00-2086-00)

FUNDS OBLIGATED

LISTING OF PIO/T NUMBERS AND AMOUNTS
(THROUGH CONTRACT AMENDMENT #11)

AS OF: MAY 17, 1985

CONTRACT AMENDMENT	DATE	PIO/T NUMBER	SOURCE	AMOUNT OBLIGATED	TOTAL OBLIGATED TO DATE	UNOBLIGATED CONTRACT BALANCE	UNOBLIGATED PROJECT CORE	UNOBLIGATED COMMITMENTS MISSIONS
PRIME	SEP.30,1982					\$ 19,645,933	\$ 14,345,933	\$ 5,300,000
PRIME	SEP.30,1982	936-4127-3621409/413	CORE	\$ 2,550,000	\$ 2,550,000	17,095,933	11,795,933	5,300,000
#3	AUG.08,1983	936-4127-3631565	CORE	1,860,000				
		936-4127-3631566	CORE	300,000				
	AMEND. #3	TOTAL		2,160,000	4,710,000	14,935,933	9,635,933	5,300,000
#4	SEP.27,1983	498-0249-3-6431074	MISSION	63,000				
		517-0000-3-30019	MISSION	69,348				
		518-0012-3-30019	MISSION	127,960				
		521-0000.1-3-30124	MISSION	3,750				
		930-0100-3032208	MISSION	8,000				
		930-0400-3032209	MISSION	8,000				
	AMEND. #4	TOTAL		280,058	4,990,058	14,655,875	9,635,933	5,019,942
#5	FEB.01,1984	936-4127-3641136	CORE	1,856,000	6,846,058	12,799,875	7,779,933	5,019,942
#6	MAY.01,1984	518-0012-3-30019	MISSION	32,000				
		391-0467-3-30341	MISSION	9,369				
		386-0484-3-40007	MISSION	9,837				
		386-0481-3-30030	MISSION	16,335				
		391-0413-3-30314	MISSION	16,068				
		527-0166-3-40020	MISSION	25,000				
		383-057-3-30080	MISSION	200,000				
		386-0481-3-30015	MISSION	81,223				
		498-0249-3-40016	MISSION	37,082				
		391-0467-3-30336	MISSION	25,600				
		527-0166-3-40027	MISSION	15,000				
	AMEND. #6	TOTAL		467,514	7,313,572	12,332,361	7,779,933	4,552,428

CONTRACT AMENDMENT	DATE	PIO/T NUMBER	SOURCE	AMOUNT OBLIGATED	TOTAL OBLIGATED TO DATE	UNOBLIGATED CONTRACT BALANCE	UNOBLIGATED PROJECT CORE	UNOBLIGATED COMMITMENTS MISSIONS
#8	AUG.25,1985	519-0184-3-80053	MISSION	103,017				
		386-0481-3-4008	MISSION	418,000				
		498-0249-3-40025	MISSION	90,532				
		498-0249-3-40047	MISSION	30,000				
		498-0249-3-6441034	MISSION	35,000				
		936-4127-3641136A1	CORE	925,000				
		936-4127-3641136A2	CORE	20,493				
		698-0507-2-6143502	MISSION	48,000				
		698-0507-2-6143601	MISSION	27,000				
		517-0000-3-40023	MISSION	1,050				
		527-0156-3-00130	MISSION	579,000				
		521-0000.1-3-40100	MISSION	9,000				
		521-0000.1-3-40099	MISSION	15,000				
		383-080-3-40032	MISSION	172,500				
		698-0507-3-6143602	MISSION	13,231				
		AMEND. #8 TOTAL		2,486,823	9,800,395	9,845,538	6,834,440	3,011,098
#9	SEP.24,1984	498-0249-3-6441034A2	MISSION	59,345	9,859,740	9,786,193	6,834,440	2,951,753
#11	APR.02,1985	383-0057-3-30080A2	MISSION	33,313				
		386-0484-3-50015	MISSION	25,405				
		522-0164-3-40179	MISSION	3,354				
		519-0177-3-50001	MISSION	22,500				
		936-4127.01-5361124	CORE	600,000				
		936-4127-5361126	CORE	1,300,000				
		263-0042-3-90638	MISSION	42,300				
		AMEND. #11 TOTAL		2,026,872	11,886,612	\$ 7,759,321	\$ 4,934,440	\$ 2,824,881

SUMMARY OF OBLIGATED FUNDS - THROUGH AMENDMENT #11

CORE FUNDS OBLIGATED TO DATE	\$ 9,411,493
MISSION FUNDS OBLIGATED TO DATE	2,475,119
TOTAL CONTRACT FUNDS OBLIGATED	\$11,886,612