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

1ST QUARTERLY REPORT

October 1, 1984 - December 31, 1984

Submitted by:
The Consortium for
International Development

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Water Management Synthesis II Project

Quarterly Report Covering Period October 1, 1984 - December 31, 1984

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WATER MANAGEMENT SYNTHESIS II PROJECT

QUARTERLY REPORT COVERING PERIOD OCTOBER 1, 1984 - DECEMBER 31, 1984

I. INTRODUCTION

This report summarizes the activities of the Water Management Synthesis II Project for the first quarter of FY 85, covering the period October 1, 1984 through December 31, 1984. 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.

In this report, various activities may be identified with the work of a specific university. This technique has been utilized for purposes of clarification, since relatively few of the project activities are jointly performed. Operationally, each specific activity is designated to one particular university based on the program thrust and/or strength of that university. The overall responsibility for that activity is then assumed by that university. Thus, universities other than those listed above may participate in the activity in various ways, such as providing team members.

During this reporting period, CID successfully concluded the selection and orientation of an Executive Project Director (EPD) in the person of Dr. Richard J. McConner from Montana State University. Dr. McConner is located at the CID Executive Office in Tucson, Arizona. He has assumed responsibilities previously held by a Managing Project Director in coordinating all WMS II project activities.

II. STATUS OF PROGRAMMED ACTIVITIES

The activities of the WMSII 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 WMSII project management from the beginning of the project up to and including December 31, 1984. 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 December 31, 1984.
- 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 December 31, 1984.
- 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 any 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 (12-31-84)

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 Development of Solutions	1-02-044-83 1-02-024-82	Completed 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	Finished	USAID
	WID-DA Workshop	2-02-034-83	Completed	
Worldwide	TT-Brochures; Newsletters, 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	Finished	Univ
	TA-Water Resource Econ. CSU Administration	1-02-042-83 0-02-998-83	Completed Completed	AID/Wash

Colorado State University Activities FY 84 (12-31-84)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Africa	TR--Africa Workshop	2-14-113-84	Finished	Univ.
Dominican Rep.	TA--Reconnaissance Team	1-02-110-84	Finished	
India	TA-Rajasthan MIP-Cad.	1-02-026-84	Cancelled	USAID
	TR-DA Workshop M.P.	2-02-031-84	Finished	USAID
	Curriculum Development	1-02-094-84	Finished	
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	Finished	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	Initiated	Univ.
	TT-ICID Senior Off. Wkshop	2-04-048-84	Finished	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	Finished	Univ.

Overall Activities FY 84 (12-31-84)

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

Colorado State University Activities FY 85 (12-31-84)

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
E1 Salvador	TA-PID Preparation	1-02-059-85	Initiated	USAID
India	TT-Dev. of Handbooks	2-13-027-85	Approved	USAID
	TT-Technology Transfer	2-06-022-85	Formal	USAJD
	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
Nepal	TR-DA Workshop	2-02-031-85	Initiated	USAID
Sri Lanka	SS-Landsat 85	3-04-038-85	Formal	Univ.
	SS-Interfacing OFWM	3-04-036-85	Formal	Univ.
	TR-DA Workshop	2-02-006-85	Formal	USAID
	TA-Central Support-85	1-02-003-85	Formal	USAID
Sri Lanka, Thailand, India	SS-On-Campus Support	3-04-037-85	Formal	Univ.
Worldwide	SS-Projected SS Expend.	3-04-058-85	Preliminary	Univ.
	TR-Seminar on System Rehab. Phase I	2-05-033-85	Formal	Univ.
	TR-Seminar on System Rehab. Phase II	2-05-034-85	Formal	Univ.
	TR-Microcomputer Workshop	2-14-032-85	Formal	Univ.
	CSU Administration	0-02-998-85	Approved	

CORNELL UNIVERSITY ACTIVITIES FY-84

COUNTRY	ACTIVITY	CODE	STATUS	SOURCE
Bolivia	TR-Tarija Short Course	2-01-095-84	Completed	USAID
India	SS-Community Kuhl's in Himachal Pradesh	3-04-099-84	Cancelled	UNIV
Indonesia	TA-Small-Scale Irrigation and Management Project	1-02-011-84	Initiated	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	Approved	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
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	Approved	UNIV
	TR-Lessons Learned Workshop	2-14-049-85	Approved	UNIV
	TR-Current Research Seminar	2-14-050-85	Initiated	UNIV
	SS-Indirect Investment Phase I	3-04-053-85	Initiated	UNIV
	SS-Indirect Investment Phase II	3-04-054-85	Formal	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
	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-WM (CWM) Meeting	1-02-029-83A	Completed	USAID
	TA-Mayfield's TDY	1-02-040-83	Completed	USAID
Peru	TA-Special Study	1-04-027-82A	Finished	USAID
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	Initiated	UNIV
	SS-Main Sys. Mgmt. & Rehab.	3-04-059-83	Initiated	UNIV
	SS-Action Research	3-04-060-83	Initiated	UNIV
	TT-Increasing WM Capabilities	2-11-020-83	Completed	AID/WASH

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	Dropped	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	Initiated	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	Initiated	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	Pending	USAID
Honduras	TA-Irrigation Development	1-02-060-85	Finished	USAID
India	TA-Water Balance	1-02-023-85	Pending	USAID
	TA-Hydraulic Conductivity	1-02-024-85	Pending	USAID
	TA-Reservoir Operation	1-02-025-85	Pending	USAID
	TA-University Curricula	1-02-013-85	Initiated	USAID
	TT-Rapid Appraisal	2-14-016-85	Pending	USAID
	TT-Innovative Teaching	2-03-012-85	Pending	USAID
	TT-Main Systems Training	2-14-015-85	Pending	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
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	Approved	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: Key activities focused on participants' contributions to the synthesis paper. Fred Weber of Boise, Idaho spent three days at USU going over his contribution and in seminar with Kern Stutler and Jack Keller. Kern Stutler was requested to contribute a week of his time to identify technical issues which the Irrigation Overview should address in the synthesis paper. Meanwhile, Weber reviewed documents and tentative conclusions on the Sahel with Derrick Thom and Philippe Zgheib and his overall outline with Jon Moris. A similar intensive planning session was held with Dr. Ed Sparling of CSU. Agreement was reached on the contents of the economic issues paper, and Dr. Sparling was furnished with a number of further documents related to the economics of African irrigation. The joint review of all the background papers by the "core group" (Moris, Thom, Stutler and Sparling) has been scheduled for the first week in January, 1985. The early January timing for the core group's meeting is necessary in order that the group can draw upon Don Humpal's paper on agronomic issues and Terry Podmore's paper on soils' aspects.

During a week's visit to Washington, D.C., Moris was able to meet a number of AID people and to circulate the draft reports received to that date. A crucial difficulty emerged in that one of USAID's summer interns in the Sahel Office had been permitted to ship Africa Bureau's collection of irrigation documents to the Kennedy School in Boston, where he is drawing on them reportedly under his own separate contract. Contact with the Clark University team initiated by Moris confirmed that they too had difficulty gaining access to AID's technical documents on irrigation earlier in the year. A key resource which WMS II might make more use of is the series of WASH projects, also being compiled under S&T funding. Another valuable contact was R. Ng of the World Bank, who is working on the conceptualization of irrigation development in relation to planning and monitoring aspects. The general lesson is that because of AID's minor involvement in irrigation (other than in the Sahel) for much of Africa, primary documentation must be sought with other donors, e.g., in England, Holland and Rome or in the World Bank.

Preliminary working papers by the English participants (Stern, Tiffen and Vincent) have been received and appear to be very useful. Stern's was received in time to guide planning by Stutler and Weber on the further development of the engineering aspects, while Tiffen's has been furnished to Sparling and to the Wisconsin group working on land tenure. Vincent's paper in particular (150 pages single spaced) is a major document with many valuable references. Weber's working paper has also been received and Zgheib's is in for final typing. It is proposed to number these contributions, e.g., "WMS II African Irrigation Overview Working Paper No. 1," so that they can be circulated immediately and will not be mistaken for the final, joint product. Remaining to be received are the papers on the Sahel (Thom), economic aspects (Sparling), agronomy and Zaire (Humpal), and soils' aspects (Podmore). Moris will prepare the first draft of the overall synthesis, to be amplified in the last week of December. The core group will then formulate a revised draft early in January, so that typing can be completed by the end of that month or early February.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Jon Moris	3.00 ppm	3.00 ppm	USU	Sociology
Ed Sparling	0.25 ppm	0.25 ppm	CSU	Ag. Economics
Mary Tiffen	1.00 ppm	1.00 ppm	Consultant	Social Science
Peter Stern	1.00 ppm	1.00 ppm	Consultant	Civil Engineering
Don Humpal	1.00 ppm	1.00 ppm	DAI	Agronomy
Linden Vincent	1.00 ppm	1.00 ppm	Consultant	Social Science
Fred Weber	1.00 ppm	1.00 ppm	Consultant	Forestry Engineer.
Philippe Zgheib	3.00 gpm	3.00 gpm	USU	Civil Engineering

2. INDIA - Madyha Pradesh MIP and Maharashtra IT&M Projects

Code Numbers: 1-02-025-84 and 1-01-021-84

Status: Initiated

Lead University: Utah State University

Summary of Work: There has been a change in management structure in the Mission and now Olsen is in charge of external training for all of the state projects. In addition, Olsen is also in charge of the technical assistance and research activities of the Maharashtra Medium and Minor Project and the Madyha Pradesh Minor Project.

There has been a reasonable level of external training associated with the Madyha Pradesh Project and the research and other technical assistance activities are being codified. However, progress has been very slow on the Maharashtra Medium Project training, technical assistance and research.

Plans are to begin the socio-tech study and subproject activities associated with the Madyha Pradesh Project sometime during the next quarter. The Madyha Pradesh Irrigation Department submitted a request for the necessary technical assistance to develop this activity last August and we have been informed that the request is nearing the final approval stage in the Irrigation Ministry in New Delhi. The expatriate team is to be supplied through a WMS II buy-in through Utah State University. Expatriate team members should include at least one agricultural engineer, an agricultural economist, and an institutional specialist.

Staffing:

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

3. INDIA - Irrigation Sector Evaluation and Strategy Review

Code Number: 1-02-103-84

Status: Initiated

Lead University: Utah State University

Summary of Work: The India Irrigation Sector Evaluation team completed a draft of the Irrigation Sector Evaluation report in mid-December 1984. Team members included Walter Coward, Sam Daines, Carl Gotsch, Jack Keller, Dean Peterson and Holly Sims. Various team members were in India during a two-month period beginning in mid-October.

Plans are to have a second or more polished draft report completed by the end of January and subsequently a working session in Washington in early February. The team held debriefing meetings with the AID Mission which were very productive. The meetings lasted almost two days with some 20 people in attendance, during which time a great deal of discussion took place in terms of the current set of USAID irrigation projects in India, suggestions for modifications on them and future prospects.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Jack Keller	2.04 ppm	2.04 ppm	USU	Irri. Engineering
Dean Peterson	2.00 ppm	2.00 ppm	Consultant	Irri. Engineering
Samuel Daines	3.00 ppm	3.00 ppm	SRD Research Group	Institutional
Walter Coward	0.75 ppm	0.75 ppm	Cornell	Sociology
Elisabeth Sims	2.26 ppm	2.26 ppm	UC/Berkeley	Sociology
Carl Gotsch	0.25 ppm	0.25 ppm	Consultant	Ag. Economics
J. Pawar	0.19 ppm	0.19 ppm	Consultant	Ag. Economics
M. Sawant	1.50 gpm	1.50 gpm	USU	Irri. Engineering
B. Mulik	1.50 gpm	1.50 gpm	USU	Irri. Engineering

4. INDONESIA Small-Scale Irrigation and Management Project

Code Number: 1-02-011-84

Status: Initiated Lead University: Cornell University

Summary of Work: The research team worked on completing reports based on summer site visits. Follow up activities (1-02-009-85) began based on team's findings.

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

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.0 ppm	1.4 ppm	Cornell	Rural Sociology
Douglas Vermillion	0.0 gsm	2.2. gsm	Cornell	Rural Sociology
Matthew Drosdoff	0.0 ppm	1.0 ppm	Cornell	Agronomy
Ramchand Oad	1.0 ppm	1.0 ppm	CSU	Irri. Engineering
Andrew Keller, Jr.	1.0 ppm	1.0 ppm	USU	Irri. Engineering
Jeff Brewer	1.0 ppm	1.0 ppm	Consultant	Sociology
Lauren Parks	1.0 ppm	1.0 ppm	Consultant	Economics

5. PAKISTAN - Command Water Management Planning

Code Number: 1-02-114-84

Status: Initiated

Lead University: Colorado State University

Summary of Work: Initial planning has begun to test a methodology for planning, designing, and developing operational plans for management of an irrigation project. Suggestions will be made for how the methodology can be used to develop plans for the improvement of an irrigation subproject area as well as operational plan for the management of the area.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Mohammed Haider	3.00 ppm	4.00 ppm	CSU	Economics
Wayne Clyma	1.60 ppm	2.10 ppm	CSU	Agricultural Engr.
S. Sritharan	3.00 ppm	4.70 ppm	CSU	Civil Engr.
Ed Shinn	3.00 ppm	4.70 ppm	CSU	Sociology
Sandy Wunch	0.64 ppm	0.64 ppm	CSU	Support Staff
M. Shafique	3.00 ppm	4.70 ppm	CSU	Agricultural Engr.
S. Karaki	0.80 ppm	0.80 ppm	CSU	Civil Engr.
J. Warner	0.33 ppm	0.33 ppm	CSU	Civil Engr.
Tom Sheng	1.75 ppm	1.75 ppm	CSU	Civil Engr.
Mary Lindburg	0.05 ppm	0.05 ppm	CSU	Support Staff
Oguz Nayman	0.67 ppm	0.67 ppm	CSU	Tech. Journalism
Max Donkor	1.50 gpm	3.00 gpm	CSU	Agricultural Engr.

6. PERU - Plan MERIS

Code Number: 1-01-112-84

Status: Initiated

Lead University: Utah State University

Summary of Work: An interdisciplinary team was in Peru during September and October, 1984 to assist in developing the Plan of Work for the project. Long-term project staff have been chosen to act as specialists to work with the WMS II team and will spend full-time at the project site. They will be led by a full-time Technical Field Team Leader selected by WMS II. This team is in place and assisted with the development of the Plan of Work and are now on the project implementing the Plan of Work. The team consists of four technical experts and a coordinator selected by Plan MERIS and approved by USAID/Peru. This team is also interdisciplinary in nature in order to cover the wide range of problems facing the project.

Counterpart staff from Plan MERIS, Cajamarca, has been assigned to work with the two teams described above and have also been involved in the development of the Plan of Work and in the initial phase of project implementation.

The first activity undertaken by the interdisciplinary teams described above was to develop a Plan of Work to cover the 14 months remaining for the project. This was accomplished during the months of September and October 1984. A major factor in the initial visit to the Cajamarca Department was to select subprojects suitable for a pilot study and research program. Following visits to all subprojects, San Marcos was selected as suitable for the Pilot Area. In order to provide sufficient scope for the studies and research required other subprojects were identified as satellites where additional work could be carried on as needed.

Data collection to establish benchmark data upon which to base comparisons and project progress. This will include data in all socio-economic aspects, irrigation and crop production parameters, training of Plan MERIS staff in extension and agricultural production technology, and a program of research in socio-economic factors and maximum economic crop production for the Sierra region of San Marcos.

Following the acceptance of the Plan of Work by USAID and Plan MERIS, the Technical Field Team Leader and his staff initiated project data collection at the field level. Farmers were contacted on the laterals selected for the initial study and agreements were made with them to carry out the project activities.

Technical assistance was provided to design a water control system for the steeply sloping lands of the Huaylla Canal. The system will include sprinkler irrigation, terraces, syphon control systems, and the use of gated pipe to control water to increase the efficiency of irrigation and to collect data on the results of improved practices.

A training program was initiated using the training modules in water management developed by Utah State University. The course material was handled by the technical specialists and will also be an ongoing activity of the project. The initial experience in the use of the modules is interesting in that there is a tendency to emphasize the more technical aspects of the modules rather than give emphasis to the basic message and to find ways to initiate a practical field program in extension. Recommendations were made to overcome this problem and to focus the training towards developing extension personnel so they can implement a farmer training program in good water management. The next visit of the WMS II team will follow-up on the training program and provide further support for the Plan MERIS staff.

STAFFING:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Bill Farnsworth	0.78 ppm	0.78 ppm	USU	Ag. Extension
David James	0.78 ppm	0.78 ppm	USU	Soil Science
Bruce Anderson	2.37 ppm	2.37 ppm	Consultant	Irrig. Engineering
Ivan Corbridge	2.47 ppm	2.47 ppm	Consultant	Ag. Economics
Barbara Lynch	0.78 ppm	0.78 ppm	Cornell	Sociology
Mark Anderson	1.19 ppm	1.19 ppm	Consultant	Irrig. Engineering
Renato Rossi	2.00 ppm	2.00 ppm	Consultant	Irrig. Engineering

7. SRI LANKA - Design Team

Code Number: 1-02-102-84

Status: Approved Lead University: Colorado State University

Summary of Work: Team prepared a project design paper for the Sri Lankan mission. Draft report is with the mission. Final editing is being completed on the report for the team leader, Gaylord Skogerboe, to take back to the mission in January.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Alan Early	2.50 ppm	3.00 ppm	CSU	Agricultural Engr.
Wayne Clyma	0.00 ppm	0.60 ppm	CSU	Agricultural Engr.
Jeff Brewer	1.50 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	1.00 ppm	1.00 ppm	CSU	Tech. Journalism
Mary Lindburg	0.22 ppm	0.22 ppm	CSU	Support Staff
Sandra Wunch	0.19 ppm	0.19 ppm	CSU	Support Staff

8. 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.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Larry Nelson	3.00 ppm	9.00 ppm	CSU	Agronomy
Sandra Wunch	0.00 ppm	0.02 ppm	CSU	Support Staff

A. FY84

A.2 Training and Technology Transfer Activities

1. ECUADOR - Ecuavir/Trainer Modules

Code Number: 2-03-054-84

Status: Initiated

Lead University: Utah State University

Summary of Work: Included in the work performed this quarter is: 1) edited English modules 6 through 20, incorporating all of the final review changes; 2) a decision was made on modules 21 through 45 to incorporate ten of the modules into five, making the total number of modules 40 instead of 45. For example, the modules "Border Irrigation" and "Basin Irrigation" were incorporated into one module, "Border and Basin Irrigation;" 3) narrated English and Spanish scripts 21 through 40; 4) generated and outputted the computer graphics for modules 21 through 40; 5) videotaped the remaining live scenes for modules 21 through 40; 6) went back into the completed English and Spanish modules 1 through 20 and eliminated all USU copyright claims upon the request of USAID; and 7) edited the English and Spanish modules 21 through 28.

Work left to completion consists of editing English and Spanish modules 29 through 40, the final review of English and Spanish modules 21 through 40, and any revisions thereof.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Tom Cronkite	3.00 ppm	3.00 ppm	USU	Media Specialist
Kern Stutler	0.22 ppm	0.22 ppm	USU	Irri. Engineering
Linda Fields	0.11 spm	0.11 spm	USU	Typing
S. von Borries	1.25 gpm	1.25 gpm	USU	Spanish Narration
E. Campanella	2.21 gpm	2.21 gpm	USU	Computer Graphics
B. Reid	2.46 gpm	2.46 gpm	USU	Computer Graphics
W. Lowrey	0.75 gpm	0.75 gpm	USU	Graduate Student
E. Rouse	0.50 gpm	0.50 gpm	USU	Narrator
S. Diaz	0.11 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 to March 1985 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.
Janelle Armentrout	0.00 ppm	0.02 ppm	CSU	Support Staff
Mary Lindburg	0.00 ppm	0.05 ppm	CSU	Support Staff
Robby Laitos	0.25 ppm	0.25 ppm	CSU	Sociology

3. WORLDWIDE - Professional Visitors & Networking

Code Number: 2-11-039-84

Status: Initiated Lead University: Colorado State University

Summary of Work: Dr. Nayman attended a technology transfer seminar at Penn State to see what other universities and agencies were doing in technology transfer.

Staffing:

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

4. WORLDWIDE - Brochures, Newsletters, Publications

Code Number: 2-12-044-84

Status: Initiated Lead University: Colorado State University

Summary of Work: No activity this quarter.

5. WORLDWIDE - Instructor's Guide for DA

Code Number: 2-13-042-84

Status: Initiated Lead University: Colorado State University

Summary of Work: A draft copy of a DA workshop teaching manual for coordinators and training staff has been prepared to assist new workshop trainers. The manual provides suggested schedule, lesson plans and objectives, teaching methods, and printed and audio visual materials available.

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

6. 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.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Dave Molden	0.00 gpm	3.49 gpm	CSU	Civil Engr.
Tom Sheng	0.00 ppm	3.00 ppm	CSU	Civil Engr.
Dan Sunada	0.00 ppm	2.33 ppm	CSU	Civil Engr.
Mohammed Haider	0.50 ppm	0.50 ppm	CSU	Economics

7. 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.

Staffing:

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

8. 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. The course outline and preliminary proposal has been prepared. The workshop will be held in late spring or early summer.

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	0.42 ppm	0.42 ppm	CSU	Tech. Journalism

9. WORLDWIDE Professional Visitors

Code Number: 2-11-068-84

Status: Initiated

Lead University: Cornell University

Summary of Work: In November, Paul Doughty presented a seminar, "Huaylas: The Continuing Evolution of a Pre-Columbian Small-Scale Irrigation System". Abha Sirivongs presented a seminar on "Water Resources Development (History) in Thailand" and showed slides on "Traditional Irrigation System Activities in Northern Thailand".

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.

Staffing:

PERSON	ACTIVITY Quart.	TIME Cum.	AFFILIATION	SPECIALIZATION
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

11. WORLDWIDE - French Language Training

Code Number: 2-11-059-84

Status: Initiated

Lead University: Utah State University

Summary of Work: Work has continued for WMS II core members to study French one hour per day with a tutor.

Staffing:

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

12. WORLDWIDE - Increasing Water Management Capabilities

Code Number: 2-11-081-84

Status: Initiated

Lead University: Managing Project Director

Summary of Work: Glen Stringham and Humberto Yap attended the 1st Regional Pan-American Conference of the International Congress on Irrigation and Drainage in Salvador, Brazil, October 15-19, 1984.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Glen Stringham	0.25 ppm	0.25 ppm	USU	Irrig. Engineering
Humberto Yap	0.25 ppm	0.25 ppm	USU	Irrig. Engineering

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. During this quarter Oscar Zolezzi continued the field measurement program.

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 continued, with publication planned in early 1985. Norman Uphoff presented a summary version of the paper to a FAO-USAID expert consultation on water management held in Indonesia (Yogyakarta and Denpasar), July 16-21.

Staffing:

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

3. WORLDWIDE - Interdisciplinary Selection of Irrigation Technology

Code Number: 3-04-062-84

Status: Initiated

Lead University: Utah State University

Summary of Work: A written description of each technology to be considered has been completed. Emphasis is placed on describing those issues that differentiates alternative technologies. The document is written for non-technical readers. Physical, social and economic differences are described.

The physical environment is described by physical parameters that may effect technology performance. A discussion of the various physical parameters and how they effect technology performance is provided. The relative effect of the various physical parameters on the technologies' performance are measured.

The economic environment is described by parameters that may effect technology choice. The economics of each technology is described in the technology chapters. The major techno-economic issues are discussed. Technology costs and associated risks are compared to probable benefits. The economics of technology choice is described mostly from the farmer's perspective.

The social environment with respect to technology choice is being researched. The chapters describing the irrigation technologies include major social descriptions. The effect of a technology on different social settings is being written.

The foundation for a technology choice methodology has been described. Examples of making irrigation choices under uncertainty are written.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Glenn Dobbs	1.50 gpm	1.50 gpm	USU	Irr. Engineering

4. 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); "Agency Capacities in Small-Scale Irrigation Development" (Susan Turnquist); and "Community Participation and Local Organization for Small-Scale Irrigation" (Barbara D. Lynch) are being prepared for publication.

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

5. WORLDWIDE - Interfacing Farm & Mgmt. Systems

Code Number: 3-04-045-84

Status: Initiated Lead University: Colorado State University

Summary of Work: A proposal was prepared and then reworked for Sri Lanka. Also proposals were prepared for India and Thailand.

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	1.50 gpm	4.50 ppm	CSU	Sociology
Kanda Paranakian	1.50 gpm	6.00 ppm	CSU	Sociology
Sandra Wunch	0.00 ppm	0.04 ppm	CSU	Support Staff
Dave Freeman	0.50 ppm	5.17 ppm	CSU	Sociology
Robert Young	0.00 ppm	2.00 ppm	CSU	Economics
Al Early	0.00 ppm	1.25 ppm	CSU	Ag. Engineering
Janelle Armentrout	0.00 ppm	0.02 ppm	CSU	Support Staff
Dennis Wendall	1.50 gpm	2.00 gpm	CSU	Sociology

A. FY84

A.6 Summary FY84

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: Plans have been made for an Agricultural Engineer and a Social Scientist to assist the USAID mission in preparation of a Project Implementation Document. Project was postponed from November to January.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
Sandra Wunch	0.11 ppm	0.11 ppm	CSU	Support Staff
Mohan R. Junna	0.22 ppm	0.22 ppm	CSU	Agricultural Engr.

2. HONDURAS - Irrigation Development

Code Number: 1-02-060-85

Status: Initiated

Lead University: Utah State University

Summary of Work: The purpose of the trip to Honduras was to: 1) review the present status of irrigated agriculture in Honduras by meeting with the Mission, GOH, and other donor officials and reviewing documentation in USAID files; 2) consult with selected USAID and GOH officers concerning overall approach for a bilateral irrigation development project; and 3) to assist USAID in generating a project development calendar for the proposed project, including specification for TA requirements for completing the project development process.

As a result of the trip the following was accomplished: 1) the scope of work was written for an irrigation development project for AID/Honduras; 2) identified the personnel needed for the PID team; 3) developed a calendar for bringing the project into reality; and 4) identified a list of irrigation development needs in Honduras and recommendations were made concerning issues which must be dealt with as the development progresses.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Glen Stringham	0.72 ppm	0.72 ppm	USU	Irrig. Engineering

3. 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	1.0 ppm	1.0 ppm	University of California (Davis)	Economics
Andrew Keller	1.0 ppm	1.0 ppm	USU	Irri. Engineering

4. 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, a Cornell team will prepare a complementary paper for the Manila ARD 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	2.5 ppm	2.5 ppm	U. Minnesota	Agri. Economist
Graduate Student	1.0 gsm	1.0 gsm	U. Minnesota	Agri. Economist

B. FY85

B.2 Training and Technology Transfer

1. BOLIVIA - Small-Scale Irrigation Design and Operation

Code Number: 2-14-010-85

Status: Initiated

Lead University: Utah State University

Summary of Work: The first of the planned irrigation training courses in Bolivia, "Design and Operation of Small Irrigation Systems" was conducted in Tarija, Bolivia, November 27 through December 13, 1984. The course was scheduled to begin November 26, but due to a general strike in Bolivia it had to be delayed until November 27 and even then some of the students did not arrive until the 28th. By holding classes on Saturdays we were able to finish on schedule.

Instructors for the course were LeRoy Salazar and R. Kern Stutler, irrigation engineers from Utah State University, and Dr. Edgar Ortiz Lema, Bolivian sociologist, contracted by the Bolivian USAID Mission. A total of 29 participants successfully completed the course; 18 from Tarija, six from La Paz, three from Cochabamba, and two from Sucre. The course was very well received, attendance was excellent and the instructors and written material rated high in the course evaluation.

The USAID Mission to Bolivia provided very good in-country support including transportation, facilities and a course coordinator. Excellent logistical support was provided locally by the Tarija Development Corporation and the Agronomy Department of the Juan Misael Saracho University.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Kern Stutler	1.03 ppm	1.03 ppm	USU	Irrig. Engineering
LeRoy Salazar	1.03 ppm	1.03 ppm	Consultant	Ag. Engineering
Pilar Calderon	0.41 spm	0.41 spm	USU	Typing

2. 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: These activities along with 3-04-043D85 were consolidated into a single subproject to economize on the administrative work load and provide a more integrated program for India. A copy of the proposal was sent to Washington for review and comment as well as to USAID/India. Meetings were held with USAID/India project managers to discuss the proposal. It was learned that activities involving Mission contributions would not be funded in FY 85 due to delays in local projects. This eliminates all of the activities under this heading. The Mission suggested that WMS core funding be used to develop a set of Ecuavir-type modules illustrating the potential of computer applications in irrigation projects. As a result, a new proposal will be formulated.

Staffing:

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

3. NEPAL - DA Workshop

Code Number: 2-02-031-85

Status: Initiated

Lead University: Colorado State University

Summary of Work: Team members designated and orientation completed for DA team.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION AREA
	Quart.	Cum.		
William Laitos	2.00 ppm	2.00 ppm	CSU	Sociology
Oguz Nayman	0.25 ppm	0.25 ppm	CSU	Tech. Journalism
Tom Sheng	0.25 ppm	0.25 ppm	CSU	Civil Engineering

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: A synthetic medium-scale irrigation project typical of the scarcity zone in Maharashtra State, India, was formulated in the last quarter of FY 84. During the first quarter of FY 85, the data were input to the unit command area models and a series of tests were made. Revision to the models were made as a result of these evaluations. Paddy irrigation during both karif and rabi conditions was added to the yield and water budgeting computations, and the model was modified to simulate multiple irrigation seasons which may occur in a single year. Finally, a statistical routine was added to generate daily time series data for crop water use and precipitation from monthly means. Work is continuing under this activity to include the simulation of the distribution and reservoir systems.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Andrew Keller	1.50 gpm	1.50 gpm	USU	Irri. Engineering
Willem Vlotman	1.50 gpm	1.50 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: Ray Norman continued field work in the Maggia Valley. Much attention has been devoted to establishing solid farmer relationships before actual on-site evaluation begins. Many informal visits have been made to informant farmers, and in general, farmers are very receptive. Sixty farmers (20 in the Guidan-Magagi scheme, 20 in the Moullela scheme, and 20 near Nadaoua) have agreed to allow researchers to monitor their activities during the dry season. Considerable effort has also been sent in meeting with ONAHA personnel to get better familiarized with on-going irrigation activities. In addition, both farmers with traditional irrigation experience before the scheme was implemented and those without previous traditional experience have been identified, and it is hoped that water use activities between these two groups will also be compared. For more information, see this quarter's special focus.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Ray Norman	3.0 gsm	6.5 gsm	Cornell	Agri. Engineering
John Wells	0.0 gsm	3.5 gsm	Cornell	Agri. Engineering

3. THAILAND - Thailand Case Study

Code Number: 3-04-043B85

Status: Initiated Lead University: Utah State University

Summary of Work: Both of the RID engineers arrived in Logan during the quarter (one at the end of December). Training programs were developed and studies initiated.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Kanching Kaward	1.50 gpm	1.50 gpm	USU	Irri. Engineering

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

Code Number: 3-04-053-85

Status: Initiated Lead University: Cornell University

Summary of Work: Graduate assistants have begun preliminary activities in Phase I by initiating a literature search related to irrigation development in the United States for the purpose of identifying actions using an indirect investment strategy. 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. In January, a formal bibliography of materials will be prepared.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
E. Walter Coward, Jr.	0.25 ppm	0.25 ppm	Cornell	Rural Sociology
Chris Wensley	3.0 gsm	3.0 gsm	Cornell	Agri. Engineering
Luin Goldring	3.0 gsm	3.0 gsm	Cornell	Rural Sociology

5. 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 began 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	3.0 gsm	Cornell	Rural Sociology
E. Walter Coward, Jr.	0.0 ppm	0.0 ppm	Cornell	Rural Sociology

6. WORLDWIDE - Irrigation System Model Development

Code Number: 3-04-043A85

Status: Initiated

Lead University: Utah State University

Summary of Work: Computer programming continued during this quarter with special emphasis on a utility program to develop a data base for the various models. In addition, a large U.S. Weather Bureau model was acquired and implemented on the USU system in the hopes that it could serve as the heart of the main system hydraulic simulation package. Both of these efforts have progressed satisfactorily.

Project personnel contributed about 12 hours of lecture and demonstration on the models developed to date in an International Irrigation Center short course entitled, "Operation and Management of Irrigation Districts." After reviewing the theoretical background of each submodel, a computer exercise in the case of the model was presented. Several conclusions emerged from these sessions. The computer programs were shown to provide answers to a number of important water management problems ranging from evaluating crop water requirements to estimating lag times in the distribution network to methodologies for reservoir operation. A major problem emerged during the demonstration, however. The CRT of the computer system is not an effective communication medium with the participants. The screen must necessarily contain user interface data which distracts the viewer. Further, the CRT must give the operator intermediate results for routine program monitoring and this further clutters the observer view. Any kind of hard copy output, while free of the prompt data, is a static, summarizing source of information that cannot be responsible to real time questions or suggestions. Our group consensus was that a special purpose graphics system should be purchased for use in training or demo sessions. The system requires a color CRT driven directly from the computer much like the IRIS demonstration on remote sensing. With this additional equipment the viewer would see a dynamic picture, enhanced by color to hold his or her attention, and yet free of the computer data needed to operate the system.

During a visit to India in November-December 1984 for UNDP, two of the WMS models were implemented on the Cyber facilities at the National Information Center and demonstrated. These programs comprise the unit command area model and were used in an application in the Mahanudi River Basin in Madyha Pradesh. As a result of this work, a substantial refinement in the computer codes was made. The Ministry of Irrigation reacted favorably to the idea of a demonstration/workshop as well as a training session involving other WMS models as well. As with the IIC workshop in Logan, the need for an effective and visual medium was apparent.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Wynn Walker	0.58 ppm	0.58 ppm	USU	Irri. Engineering
Randy Diven	2.50 gpm	2.50 gpm	USU	Irri. Engineering

7. 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: Carol Ferguson finished collecting data in the Philippines and returned to Cornell in December to begin the analysis phase of the project. Fred Valera's thesis was also finished in the last quarter. Ed Martin and Bob Yoder presented papers at the 13th annual conference in South Asia, University of Wisconsin, Madison, November 2-4, 1984. Martin's paper was entitled "Indigenous Water Users Groups for Irrigation Management in Nepal," and Yoder's paper was entitled "Time-tested Technologies for Irrigation in Nepal: Himalayan Folk Engineering Success, Limitations, and Possible Extension."

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
Randolph Barker	0.25 ppm	2.75 ppm	Cornell	Agri. Economics
Edward Martin	3.0 gsm	9.0 gsm	Cornell	Agri. Economics
Robert Yoder	3.0 gsm	11.5 gsm	Cornell	Agri. Engineering
Fred Valera	0.0 gsm	9.0 gsm	Cornell	Agri. Engineering
Carol Ferguson	3.0 gsm	7.0 gsm	Cornell	Agri. Economics
Tammo Steenhuis	0.0 ppm	1.0 ppm	Cornell	Agri. Engineering

8. 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: A work plan for IRIS International was developed in detail and sent to Washington for approval. One USU's graduate students visited with IRIS during the quarter and is developing a state-of-the-art summary of the technology for the project.

Staffing:

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

B. FY85

B.4 Administration

Cornell University Administration

PERSON	ACTIVITY Quart.	TIME Cum.	AFFILIATION	SPECIALIZATION
E. Walter Coward, Jr.	0.5 ppm	0.5 ppm	Cornell	Rural Sociology
Barbara D. Lynch	2.0 ppm	2.0 ppm	Cornell	Rural Sociology
Fua M. Hazelman	3.0 ppm	3.0 ppm	Cornell	Secretarial
Beth Rose	1.2 ppm	1.2 ppm	Cornell	Editing
Betty Van Amburg	0.75 ppm	0.75 ppm	Cornell	Secretarial
Grace Saatman	1.5 ppm	1.5 ppm	Cornell	Accounts Coordinating
Debbie Ostrander	0.75 ppm	0.75 ppm	Cornell	Secretarial

Administration

CSU Administration FY 85 0-02-998-85

NAME	QUARTERLY 10/01/84-12/31/84	CUMULATIVE 12/31/84
Professional		
Wayne Clyma	0.87 ppm	0.87 ppm
Darlene Fowler	1.00 ppm	1.00 ppm
Dave Freeman	1.00 ppm	1.00 ppm
Dan Lattimore	0.67 ppm	0.67 ppm
Al Madsen	1.00 ppm	1.00 ppm
Tom Sheng	1.00 ppm	1.00 ppm
Support Staff		
Janelle Armentrout	1.35 ppm	1.35 ppm
Beverly Button	1.50 ppm	1.50 ppm
Don Kelly	1.50 ppm	1.50 ppm
Mary Lindburg	2.69 ppm	2.69 ppm
Sandra Wunch	1.89 ppm	1.89 ppm

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 the Jordan report; Indonesia report; the WMS II quarterly report; the CID mid-year report; and trip reports for Sri Lanka, Peru, Brazil, Bolivia, and Honduras. Consulting agreements were prepared for Bruce Anderson, Renato Rossi, Mark Anderson, and Ivan Corbridge for the Plan MERIS activity; and LeRoy Salazar for the Bolivia training course activity. A subcontract agreement was prepared for Don Humpal of Development Alternatives, Inc. for the African Irrigation Overview activity. A contract amendment was made for S.R.D. Research Group.

Travel arrangements including tickets, per diem advances, travel expense clearance, visas, etc. were made for Jack Keller, Holly Sims, Sam Daines, Walt Coward, Dean Peterson and Carl Gotsch to India; Glen Stringham and Humberto Yap-Salinas to Brazil; Kern Stutler and LeRoy Salazar to Bolivia; Andy Keller to Indonesia; Bruce Anderson and Mark Anderson to Peru; Glen Stringham to Honduras; Jack Keller to Fort Collins; Bryant Smith to Denver; and Amala Jayasekara to Washington, D.C. Arrangements were also made for Ivan Corbridge to be the long-term credit specialist in Peru for the Plan MERIS activity, which included shipment of household goods, procurement of appliances, setting up local revolving accounts, etc.

Budget revisions were made for the African Irrigation Overview, Haiti Sector Survey, India Maharashtra Minor Irrigation Project, India Maharashtra IT&M activity, Pakistan Command Water Management activity, Peru Plan MERIS activity, Pakistan Irrigation Policies activity, and the India Irrigation Sector Evaluation and Strategy Review activity. A new activity (Honduras) was assigned to USU and a budget was 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: the Haiti Irrigation Sector Survey; the Indonesia Irrigation Project; the Peru Plan MERIS activity; the Mahaweli Water Project in Sri Lanka; and the Sri Lanka Diagnostic Analysis Evaluation.

Staffing:

PERSON	ACTIVITY TIME		AFFILIATION	SPECIALIZATION
	Quart.	Cum.		
<u>Professional:</u>				
Jack Keller	0.66 ppm	0.66 ppm	USU	Irri. Engineering
Bryant Smith	3.00 ppm	3.00 ppm	USU	Institutional
<u>Support Staff:</u>				
JoAnn Biery	3.00 spm	3.00 spm	USU	Secretarial
Linda Fields	1.50 spm	1.50 spm	USU	Secretarial
Jo L. Egelund	1.50 spm	1.50 spm	USU	Accounting
Karen Hammer	1.50 spm	1.50 spm	USU	Production Typing
Lorraine Walker	0.33 spm	0.33 spm	USU	Procurement
<u>Graduate Students:</u>				
N. Adams	0.50 gpm	0.50 gpm	USU	Irri. Engineering
D. Robinson	0.75 gpm	0.75 gpm	USU	Ag. Economics

B. FY85

B.5 Overall Administration--FY85

Overall Administration FY 85 0-01-999-85

NAME	QUARTERLY 10/01/84-12/31/84	CUMULATIVE 12/31/84
Janelle Armentrout	0.45 ppm	0.45 ppm
Beverly Button	1.50 ppm	1.50 ppm
Don Kelly	1.50 ppm	1.50 ppm

CSU PPM on Other Institution's Activities

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

Sandra Wunch	0.13 ppm	0.23 ppm
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	1.50 ppm	1.50 ppm
Ramchand Oad	2.00 ppm	2.00 ppm

CID-EI Salvador 1-02-107-84

Dan Lattimore	0.33 ppm	1.00 ppm
Darlene Fowler	0.00 ppm	0.35 ppm

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

Edward Sparling	1.00 ppm	1.44 ppm
Terry Podmore	0.70 ppm	0.70 ppm

B. FY85

B.6 Summary FY85

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: Honduras

Title of Activity: Irrigation Development Project

Code Number of Activity: 1-02-060-85

Completion Date: 12/84

Lead University: Utah State University

Description of Activity: Review present status of irrigated agriculture by meeting with the Mission, GOH, and other donor officials and review documentation in USAID files; consult with selected USAID and GOH officers concerning overall approach for a bilateral irrigation development project; and assist USAID in generating a project development calendar for the proposed project, including specification of TA requirements for completing the project development process.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Glen E. Stringham	USU	Irrig. Engineering

Significant Findings and Results: The most significant recommendations made to both AID and Recursos Hidricos for irrigation development in Honduras are: First, scale the size of the project to physical reality. A tentative figure of \$25,000,000 to spend in the next seven years had been set by AID as the size of the project. Furthermore, the project was aimed at developing small and medium sized irrigation systems. It would be impossible to spend that much money in that length of time without a major construction element in the project. Also, it would be impossible for Honduras, with the present level of manpower and financial capability, to absorb that much irrigation development in such a short time.

Second, accelerate the development of the master plan by having an annotated bibliography made of all the documents and reports that are now available on proposed irrigation development in Honduras. This will help in setting priorities.

Third, for each of the irrigation projects built, the services of an outside consultant should be obtained who will be available throughout the design and construction phases of the project. His responsibility will be to consult with the Honduras engineers as needed to make sure that the design is adequate but not excessive, and that construction supervision is sufficient to meet specifications.

Lastly, a training component must be an essential element of the project. That training must include expatriate training at the B.S., M.S. and PhD. levels, improvement of the training capability of Honduras institutions, in-service training for those presently in the irrigation system (administrators to campesinos), and particular attention to the campesinos.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Scope of Work for an Irrigation Development Project	12/84	AID/Honduras
Trip Report	12/84	CSU, CU, AID

Country: Sri Lanka

Title of Activity: Farmer Organization Program

Code Number of Activity: 1-02-007-84

Finished Date: December 1984

Lead University: Cornell University

Description of Activity: The purpose of this activity has been to provide technical assistance to the Water Management Group in the Agrarian Research and Training Institute (ARTI) in order to build up the group's interdisciplinary capacity for water management research training and to conduct action programs in support of the AID-funded Gal Oya Water Management Project. In addition, consultants worked with the AID mission and Irrigation Department on relevant sociotechnical matters in order to improve organization for water management and performance of irrigation system in Sri Lanka.

In July, an in-service training program was held at the National Irrigation Institute for all Institutional-Organizers with more than six months of service. The program was planned by Cornell consultant, Sena Ganewatte, and Norman Uphoff participated in it while in Sri Lanka for an SSRC conference. Plans were made for recruiting and training two new batches of Institutional-Organizers, one in Sinhala medium and one in Tamil medium. At the end of July, Uphoff met with the Secretary of the Ministry of Lands and Development to assess progress in the farmer organization effort and to get some agreement on steps in its institutionalization.

Professor Randy Barker spent three weeks during August with the Water Management Group evaluating their agro-economic research with C.M. Wijayarathne and A.S. Widanepathirana. Jeff Brewer served as Cornell resident consultant through June 1984.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Norman Uphoff	Cornell	Political Science
Randolph Barker	Cornell	Agri. Economics
Hammond Murray-Rust	IRRI	Irri. Engineering

Significant Findings:

During the course of this activity, the Institutional Organizer (Farmer Organization) program in Gal Oya was expanded beyond the initial experimental area in order to assist in the completion of rehabilitation work along the Left Bank. Structures and procedures were developed that improve links between main system management and farmer management activities at intermediate and lower levels, including monitoring and measurement programs. Plans and procedures were begun to institutionalize the IO program within the Irrigation Department or another appropriate agency. Consultations were carried out to extend farmer participation modalities to other major irrigation schemes in Sri Lanka. Finally, the project helped in data processing and analysis for the monitoring and evaluation of project impacts in Gal Oya.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
"Overview of Trip Report on Institutional-Organizers Programme in Gal Oya, Sri Lanka, January 1984 (Uphoff)	February 1984	AID/W, Mission, CID USU, CSU
"TDY Report, Sri Lanka" (Barker)	January 1984	AID/W, Mission, CID USU, CSU
"The Institutional-Organizer Programme in Gal Oya, Sri Lanka after Thirty-three Months in the Field, January 13-17, 1984" (Uphoff)	February 1984	AID/W, Mission, CID USU, CSU
"TDY Report, Sri Lanka" (Murray-Rust)	April 1984	AID/W, Mission, CID USU, CSU.

FINISHED ACTIVITIES

B. Training and Technology

Country: Africa

Title of Activity: Africa Workshop

Code Number of Activity: 2-14-113-84

Finished Date: 12/31/84

Lead University: CSU

Description of Activity/Services Involved: Terry Podmore went to Zimbabwe to present a paper at a small scale irrigation conference. He also spent a few days in Malawi prior to the conference to consult with Peace Corps volunteers. In addition, he discussed with mission personnel in Kenya, Malawi and Zimbabwe irrigation plans and potential for WMS involvement.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization Area</u>
Terry Podmore	CSU	Agricultural Engr.

Significant Findings: The entire trip was most beneficial and served to establish contacts in the countries visited and also to meet with delegates from other areas at the symposium. The paper presented gave insight into WMS capabilities and was very well received. The opportunities for WMS activities in southern Africa were established through contacts in Malawi and Zimbabwe. It is suggested that this area of Africa be established as an initial target area for promoting WMS involvement.

The Peace Corps/Malawi involvement in irrigation is currently limited to one volunteer (Phil King). He is doing an excellent job in the Lower Shire Valley given the limitations of his position and circumstances. He would benefit greatly from increased technical and financial support and would prove extremely effective in his position. There is considerable scope for expansion of the irrigation effort in Malawi and ideas have been put forth as possible avenues for implementation. Unfortunately, the time in-country was too short to develop definite plans for program development. The WMS project is interested in further cooperation with Peace Corps/Malawi in order to provide technical support and training. In addition, the possibilities of other WMS involvement in Malawi was discussed with Government of Malawi personnel. Therefore, the opportunities for combined activities should not be overlooked.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
1. Trip Report	11/20/84	JPMT
2. Report on Peace Corps Activity	11/20/84	JPMT
3. Paper presented at seminar in Zimbabwe	11/20/84	JPMT

Country. Bolivia

Title of Activity: Tarija Short Course

Code Number of Activity: 2-01-095-84

Date Finished: December 1984

Lead University: Cornell University

Description of Activity: The development of curricula for three short on-site irrigation workshops to be held at Tarija, Boliva in November 1984 through October 1985. Planning for the proposed courses was carried out with the assistance of key Bolivian personnel and the courses will be subject to availability of funding by the Bolivia Mission and WMS-II.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Barbara D. Lynch Kern Stutler	Cornell USU	Rural Sociology Irrigation Engineering

Significant Findings:

Course planning was completed.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
"Bolivia Trip Report" (Kern Stutler)	July 6, 1984	AID/W, CID, Project personnel

Country: Bolivia

Title of Activity: Small-Scale Irrigation Design and Operation

Code Number of Activity: 2-14-010-85

Completion Date: 12/84

Lead University: Utah State University

Description of Activity: A course on small-scale irrigation design and operation was organized and put on in which the following tasks were carried out: (1) the course outline was developed in collaboration with Bolivian personnel; (2) training materials were developed in Spanish which were used in the course, including field exercises; (3) the course was presented to 29 participants; and (4) a final written report and evaluation of the course was provided.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
R. Kern Stutler	USU	Irri. Engineering
LeRoy Salazar	Consultant	Irri. Engineering

Significant Findings and Results: There is a serious shortage of Bolivian agronomists and civil engineers with specialized training in irrigation. Currently, there are several irrigation projects, both large and small, in various stages of development, all of which will require staff with additional training in irrigation if maximum use is to be made of the land and water resources.

Training efforts should continue with the planned WMS course in Bolivia in 1985. The best time for this course would be the month of October in order to have access to fields actually being irrigated. This hands-on type of field experience is essential for the participants. Major emphasis to date on the small irrigation projects seem to have been placed on the infrastructure to convey water, with little or no regard to the on-farm application or agronomic aspects of irrigated agriculture. The planned course for 1985 includes an agronomist and some emphasis in this area.

The audio-visual training modules partially funded by WMS were very useful in the training course and should be made available for all training courses of this type and the rest of the set completed as soon as possible so they can also be available for use in future training courses.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Trip Report	12/84	CU, CSU, AID
Evaluation of course	12/84	USAID/Bolivia CU, AID

Country: Indonesia

Title of Activity: FAO/AID Expert: Indonesia

Code Number of Activity: 2-14-067-84 Finished Date:

Lead University: Cornell University

Description of Activity: Norman Uphoff presented a summary version of the state-of-the-art farmer participation paper to the FAO-USAID expert consultation on water management held in Indonesia, July 16-21, 1984. He made the keynote presentation on behalf of USAID, and served as a resource person during the meeting. Prof. James Nickum with a Chinese co-author, presented a case study from China. C.M. Wijayaratne also delivered a paper discussing farmer participation on the Gal Oya Project in Sri Lanka.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
Norman Uphoff	Cornell	Political Science
James Nickum	Cornell	Asian Studies
C.M. Wijayaratne	Cornell	Agri. Economics

Significant Findings and Results:

A draft paper, "Analyzing Farmer Participation in Irrigation Water Management" was prepared.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
"Analyzing Farmer Participation in Irrigation Water Management" (Uphoff, St. Julien & Meinzen-Dick)	July 1984	FAO-USAID Consultation

Country: Worldwide

Title of Activity: Main System Irrigation Task Force

Code Number of Activity: 2-06-077-84

Finished Date: December 1984

Lead University: Cornell University

Description of Activity: The irrigation task force met in Fort Collins in May 1984. The task force discussed proposals for university initiated activities.

Staffing:

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

Reports/Documents: None

Country: Worldwide

Title of Activity: Current Research Seminar Planning

Code Number of Activity: 2-14-075-84

Finished Date: December 1984

Lead University: Cornell University

Description of Activity: Randolph Barker carried out planning activities for a joint IMMI/Water Management Synthesis II workshop—Workshop on Research Priorities for Irrigation Management in Asia, January 6-11, 1985.

Staffing:

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

Reports/Documents: None

FINISHED ACTIVITIES

C. Special Studies

Country: Niger

Title of Activity: Small-Scale Irrigation and Water Management in Niger,
Preliminary Investigation

Code Number of Activity: 3-04-098-84 Finished Date: December 1984

Lead University: Cornell University

Description of Activity: Ray Norman travelled to Vichy, France in February 1984 to research French-language materials dealing with irrigation in Niger. Norman completed a literature review of Niger in preparation for on-site field work later in the year, as well as drafting a proposal for a field study of small-scale irrigation in Niger. With the assistance of John Wells, an annotated french-language bibliography on Sahelian irrigated agriculture was written, reproduced, and distributed.

Staffing:

<u>Personnel</u>	<u>Affiliation</u>	<u>Specialization</u>
W. Ray Norman	Cornell	Agri. Engineering
John Wells	Cornell	Agri. Engineering

Significant Findings:

A large volume of material on Sahelian irrigated agriculture was found making it possible to produce a 50 page bibliography.

<u>Reports/Documents</u>	<u>Completion Date</u>	<u>Distribution</u>
Sahelian Irrigated Agriculture A Review of French Literature Sources (Norman & Wells)	October 1984	Mission, AID/W, CID USU, CSU
"A Proposal for Development of a Study of Small-Scale Irrigation and Water Management in Niger, West Africa (Coward, Walter, Norman)	February 1984	AID/W, CID, Mission USU, CSU
"Trip Report" (Wells)	December 1984	AID/W, CID, Mission USU, CSU

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: SRI LANKA DESIGN TEAM

An interdisciplinary team of five professionals spent two months in Sri Lanka during this quarter to design a major irrigation project for the country. A summary of the design team's work follows.

The Irrigation Systems Management Project (ISM Project) is designed to carry out the second phase of the water management improvement program begun in Sri Lanka in 1979 with USAID's Water Management Project. The ISM Project will work with the newly established Irrigation Management Division in the Ministry of Lands and Land Development, the Irrigation Department, and other departments and agencies to achieve the Government of Sri Lanka's goal of improving agricultural production.

Project Goal and Objectives

The goals of the ISM Project are to expand food production, increase employment opportunities, and raise the standard of living for farmers with small landholdings. The degree to which the Irrigation Systems Management Project achieves this goal will be measured by intensively sampling crop yields and farm incomes at the ISM Project sites.

In general, this project should develop a national institutional capability for increasing food production on existing irrigated land. Specifically, the Irrigation System Management Project should develop the necessary infrastructure to support the perpetual renewal of irrigation schemes in Sri Lanka and improved responsiveness to agricultural needs to sustain continued increases in agricultural productivity.

The major objectives of the Irrigation System Management Project are:

develop and strengthen farmers' organizations (water users' associations) to help operate and maintain the irrigation systems;

enhance the capability of Irrigation Department staff in the Ministry of Lands and Land Development for operation and maintenance (O&M);

support the program for Integrated Management of Major Irrigation Schemes under the Irrigation Management Division (IMD);

institutionalize the training capabilities that support farmers' organizations and that improve O&M and project management; and

document the lessons learned to apply to other irrigation schemes in Sri Lanka and Asia, with special reference to the policy implications to consider in order to ease the transfer of technology.

Project Sites

The Irrigation System Management Project is designed as a learning process for making water distribution within irrigation schemes reliable and equitable. Institution-building will occur nationally and within selected district and irrigation schemes. The selected project sites are Gal Oya Left and Right Bank Canals in Ampara District; Parakrama Samudra, Giritale,

Minneriya, and Kaudulla in Polonnaruwa District; and Ridi Bendi Ela and Hakwatuna Oya in Kurunegala District. Some photographs taken during site visits follow.

Highlights of the Procurement Plan

Small construction equipment will be purchased to improve essential structures and to do priority maintenance on the four tank irrigation schemes in Polonnaruwa District. Construction equipment purchased under the Water Management Project will be used to rehabilitate the Gal Oya Right Bank Canal system.

The ISM Project strongly emphasizes the use of micro-computers for operations and maintenance, financial management, and monitoring, evaluation and feedback. In addition, radio communications equipment will be purchased for operating the irrigation schemes.

Project Activities (Technical Analysis Summary)

The Gal Oya Left Bank Canal system has the highest priority because pragmatic rehabilitation will be completed during calendar year 1985 (which corresponds with the Sri Lanka fiscal year) under the Water Management Project. By the start of the Irrigation Systems Management Project (January 1986), farmers' organizations will exist on most field channels. Also, some distributary-channel farmer organizations will have been created. The ISM Project will complete the job of organizing farmers on all field channels and attempt to create farmers' organizations on all of the distributaries.

The Water Management Project will develop an operations plan using computerized, weekly, water-delivery schedules, and the ISM Project will bring this capability up to daily scheduling of water deliveries. Project funds will be used to provide an adequate staff for O&M and to maintain the main and branch channels as part of a preventive maintenance plan, while O&M fees and farmers' labor will be used to maintain distributary and field channels. Improved financial management practices will be undertaken, and the capability for monitoring, evaluating and providing feedback will be further strengthened. Training and research will continue.

The Gal Oya Right Bank Canal system was selected as a site because: it is a part of the same system as the Gal Oya Left Bank Canal, which the Senanyake Samudra Reservoir largely controls; the available irrigation water supplies are inadequate most years, which makes improved irrigation water management particularly important; and about 4,000 acres of land in the lower portions of the system no longer receive irrigation water because of deteriorating irrigation channels and inadequate irrigation water management on the 10,000 acres cultivated by the Sri Lanka Sugar Corporation. Project funds would be used for pragmatic rehabilitation similar to the work being completed on the Gal Oya Left Bank Canal system. In fact, the construction equipment purchased through the Water Management Project can be used for structurally repairing the Right Bank irrigation channels. The process for undertaking O&M activities, as well as other ISM Project activities, would be the same as described below for the four tank irrigation schemes in the Polonnaruwa District.

A major thrust for the ISM Project is to use fewer capital expenditures than with pragmatic rehabilitation, but to invest more in human resources to structurally upgrade the irrigation channels in the four tank-irrigation

schemes near Polonnaruwa; and then to maintain the channels (rather than allowing them to deteriorate again) and operate the system so that farmers' organizations receive a timely, equitable share of the available water supplies.

To accomplish these objectives considerable emphasis must be placed on monitoring, evaluation and feedback to understand and be sensitive to the internal workings of each irrigation scheme; training to enhance professional capabilities is required and research is needed to improve and transfer the process to other irrigation projects. To sustain an irrigation network that can equitably distribute water, financial management must improve so that accountability for adequate operations and maintenance is assured, a strong emphasis must be placed on organizing farmers for operations and maintenance, and the farmers' organizations must be strengthened so farmers can improve their irrigation water management to diversify and intensify their crop production.

The Ridi Bendi Ela Tank Irrigation Scheme, which serves 6,500 acres, was selected to test a lower level of irrigation system improvement. This site, located in Kurunegala District, was purposefully chosen because it lies outside of Polonnaruwa and Ampara Districts where higher levels of improvement are proposed. At Ridi Bendi Ela, project funds would not provide for structurally repairing irrigation channels but would be available for all other ISM Project activities including farmers' organizations; financial management; monitoring, evaluation and feedback; training; and research.

At the Hakwatuna Oya Tank Irrigation Scheme in Kurunegala District, which serves 5,500 acres, only research to study the impact of the Integrated Management of Major Irrigation Schemes program is to be funded, the lowest level of improvement under consideration.

Results of the Economic Analysis

The economic analysis of increasing crop production indicates that the ISM Project will generate enough net benefits to justify the work done on each site. However, the most important benefit from the ISM Project is to develop more knowledge about the internal, physical irrigation system so that improved management practices can equitably distribute water and increase total farm income; but more importantly, provide equity in farm incomes. The project also should establish more cost-effective and affordable methods of improving irrigation schemes. Combining lower capital expenditures and improving management will cost less than a cycle of rehabilitation and deterioration. Also, the irrigation facilities are much more likely to be maintained afterwards.

Results of the Social Soundness Analysis

The Project will immediately benefit the 55,000 farm families in the eight target schemes who should earn more income through increased production. Since the Project will improve water availability in the tail areas of the eight systems more than in the head areas, the Project should improve income equity throughout the schemes.

A problem exists. In Gal Oya Right Bank, the Sri Lanka Sugar Corporation can control water use and availability below their plantation. To prevent the Sugar Corporation from garnering most of the benefits of this project, the Sugar Corporation should sign an agreement concerning their rights and duties toward irrigation water in the system.

Participants in the Project include government officers and farmers. As experience in Gal Oya Left Bank shows, farmers will participate if reliability and water supplies improve, and if Irrigation Department officers respond positively to farmers' problems. The problem of overlapping functions between farmer representatives and vel vidanes will be overcome through some changes brought about by the Commissioner of Agrarian Services. Other problems found in the Gal Oya Left Bank can be overcome with proper planning and training.

The Project should positively affect women, but will have an uncertain impact on domestic water supplies. Increased income spent on goods and services will spread the benefits of the Project, as better irrigation management will spread benefits throughout the government.

Results of the Administrative Analysis:

The Ministry of Lands and Land Development (MLLD), responsible for major irrigation schemes outside of Mahaweli, will implement the Project. A project coordinating committee, chaired by the Secretary of the MLLD will oversee the Project. A project director who reports to the Secretary of the MLLD will lead the Project. Four project deputy-directors, one for each of the four major management efforts: farmer organization, financial management, monitoring and evaluation, and O&M will assist the director. The first three of these functions will be the responsibility of the Irrigation Management Division and the last the responsibility of the Irrigation Department. Responsible officers will be assigned within the districts and at the individual schemes.

The Irrigation Management Division began operating in April 1984 with seven officers and ten support staff in Colombo and a project manager for each irrigation scheme. The IMD is not fully staffed yet. The IMD has four major responsibilities: managing the Integrated Management of Major Irrigation Schemes program, overseeing O&M fee collection, managing the Major Irrigation Rehabilitation Project funded by the World Bank, and implementation of the ISM Project. For the ISM Project, the IMD must recruit a large number of new staff including another deputy director, 14 staff in Colombo, 8 district staff, and 72 scheme staff, plus a large number of short-term institutional organizers. The IMD's organization and functions are still evolving and need clarifying. This Project will help provide that clarification.

The Irrigation Department is well established and capable of undertaking the construction and other tasks placed upon it by this Project. The Irrigation Department will need 18 additional staff at the schemes plus some number to be decided later for O&M at the Gal Oya Irrigation Project.

Training will be conducted by the Project for Advancing Settlement Expertise (PASE) within the Ministry of Lands and Land Development, the Irrigation Department's Galgamuwa Irrigation Training Institute, the Sri Lanka Institute of Development Administration, the University of Moratuwa and the University of Peradeniya. All are capable. However, PASE is a United Nations Development Project that may not continue. If not, its training responsibilities will be taken over by the Sri Lanka Institute of Development Administration or the Irrigation Management Division itself. Research will be contracted out to capable Sri Lanka institutions.

Status at End of Project

After five years, the integrated program of irrigation systems management is expected to result in the following conditions:

- Better communication and coordination among farmers' organizations, Irrigation Management Division personnel, and Irrigation Department personnel;
- Increased capability of IMD to create farmers' organizations, to incorporate computerized financial management practices, and to monitor, evaluate and provide feedback;
- Improved operations and maintenance procedures incorporated into the standard operations of the Irrigation Department;
- Improved methods for creating and strengthening farmers' organizations;
- Annual maintenance activities at all major irrigation schemes incorporated into improved financial management procedures;
- Monitoring, evaluation and feedback strengthened in donor-funded irrigation projects by requiring seasonal and annual reports of important performance indicators;
- Strengthened training capability in the Galgamuwa Irrigation Training Institute (O&M training), the Agrarian Research and Training Institute (for training institutional organizers to help farmers create farmers' organizations and for research on methodologies), the Sri Lanka Institute of Development Administration (to provide assistance in computerized financial management), and the Project for Advancing Settlement Expertise (for project management training);
- Analysis of monitoring, evaluation and feedback data and research to evaluate strategies for improving irrigated agriculture;
- The Gal Oya Left Bank Canal system being maintained in a sustained condition after pragmatic rehabilitation and supporting a new program of improved farm management and diversified agricultural production during the life of the project, and/or afterwards; and
- Pragmatic rehabilitation of the Gal Oya Right Bank Canal system and essential structural improvements at the four Polonnaruwa tanks to make them highly suitable for a new program of improved farm water management and diversified agricultural production.

B. CORNELL UNIVERSITY SPECIAL FOCUS

NIGER: TRADITIONAL AND DEVELOPED SMALL SCALE IRRIGATION SYSTEMS

The Cornell special study on traditional and developed small-scale irrigation systems in Niger addresses the question of what technologies and management practices make the best use of existing local resources and provide farmers with the support they need if they are to maintain control over developed systems. To this end, Ray Norman, a graduate student in agricultural engineering, is directing a research program designed to analyze water management practices in several small-scale reservoir schemes and selected traditional systems in the Maggia Valley of southern Niger. Within this framework, the project's specific objectives are the following:

- 1) To describe technologies, organizations, and economic incentives involved in the operation and management of both traditional and developed systems.
- 2) To analyze technical, social, and economic factors affecting water use and allocation, cropping patterns, and the utilization of cropland for both traditional and developed irrigated systems.
- 3) To evaluate the technical and, to the extent possible, the economic efficiency of the traditional and developed systems, primarily in light of the performance of local resources within both.
- 4) To assess the extent of the utilization of local resources in the operation and management of the Maggia Valley schemes and appropriateness of both the infrastructure and local management policies (i.e., the major inputs external to the local resource base) in accommodating and utilizing the indigenous resource base found locally.
- 5) To provide an information base from which an assessment can be made of mixes of technical and human resources used in irrigation design, operation, and maintenance.
- 6) To identify and assess possibilities of intervention in irrigation in the region.

During his first four months in Niger, Norman laid the groundwork for field studies. He spent considerable time in making personal contacts with ONAHA (Office National des Amenagements Hydro-Agricole) and government ministries, and in procuring necessary equipment. In the field he made rather extended and careful efforts to establish solid farmer relationships before actual on-site evaluation begins.

At present sixty farmers have been identified who, after careful explanation of the intended evaluation procedures, have agreed to allow the monitoring of their activities in the on-coming dry-season cropping cycle.* This number includes roughly twenty in the Guidan-Magagi scheme, twenty in the Moullela scheme (both ONAHA), and twenty near Madaoua in the traditional micro-irrigation sector (largely onion growers). It is likely not all sixty farmers' activities will be monitored/evaluated in full; while at the same time, when

the formal survey(s) is taken, the number interviewed will certainly not be limited to this number.

In addition to farmer contacts, time was devoted to numerous visits/meetings with the on-site perimeter directors (ONAHA employees), elected cooperative officials, and local extension personnel—both to establish good rapport and to become familiar with the on-going irrigation activities. Perimeter directors in the two ONAHA schemes in the Maggia Valley have been very cooperative in helping locate/identify farmer plots to be monitored.

Each perimeter and its associated farmer cooperative is divided into four or five "Groupements Mutuels de Productivite" (GMP) or "blocks"—each semi-autonomous with respect to water allocation/distribution within its bounds. One or more sample plots for water use in each GMP will be monitored. In addition, both farmers with irrigation experience before the scheme was implemented and those without previous experience have been identified; it is hoped that water use activities by these two groups can be compared.

During the dry-season, the retention storage volume of the Maggia schemes does not usually allow for cultivation of the whole perimeter. Only a fraction of the total is cropped during the cycle (ranging anywhere from 5 percent to 60 percent of total perimeter hectarage depending on both the amount and timing of the previous season's rains). In light of this, the cooperative at the Moullela scheme permits hand-dug wells to be constructed in the non-irrigated sector of the scheme so that the high water table (caused by the nearby reservoir) can be taken advantage of by those wishing to pursue traditional irrigation cultivation. Thus, within the perimeter, there exist plots irrigated both from the reservoir and from dug wells via manual pumping. (The wells are filled in before the wet season irrigation of the whole perimeter begins. Other Maggia Valley cooperatives do not permit this activity within the perimeter.)

Familiarization with the canal layout/distribution system of both Maggia Valley perimeters has been necessary in order to locate optimal sites for flume placement or where flow measurements can be made directly with a flowmeter. This has required both study of system blueprints and careful field verifications—locating both functional and non-functional gates, used and non-used canals, etc. At some locations where conditions permit, weirs will be used instead of flumes. These have already been constructed and are ready for installation.

Initial observations have indicated that, in addition to the typical steady-state losses in the distribution system, transient losses also probably account for much of the total loss. Since steady-state losses are much easier to assess, recent concentration has been given as to how to best quantify this latter category of losses.

Three small climatological stations, two at each scheme in the Maggia Valley and one among the onion growers near Madaoua, are being constructed. The primary data to be taken at these are pan evaporation, daily maximum and minimum temperatures, and precipitation. Approximations of windspeed and sunshine/cloud cover will be noted on each day as well.

A significant though unforeseen factor affecting research activities is the drought, one of the worst in the decades. The past wet season saw rain, but it was late in coming and exceedingly variable during its short duration. Fortunately, the reservoirs in the two ONAHA schemes have retained enough water for a dry-season crop, albeit on a somewhat reduced hectarage. Groundwater still seems to be sufficient to carry the traditional irrigators through the dry-season. It is the more long-range (and yet unforeseen) effects of the drought that will likely have the most significant effect on the research work. The continual reshuffling of personnel on ONAHA is another ongoing problem for the special study. This is largely due to ONAHA's attempts to decentralize, but it has required considerable effort to keep new officials informed on the ongoing research activities.

In addition to monitoring water use during the on-coming dry season activities (Nov. 1984-March 1985), Norman plans to begin initial investigations on soil types and variability within the perimeters, field capacity, infiltration rates, etc. It is hoped that the first formal survey will be executed before the end of this dry-season cropping cycle. This should provide valuable data on activities subject to serious drought-related constraints. To develop the survey, Norman will work with an economist from the AID Mission's ADO office to develop a survey instrument. He will also use other survey data available for Niger.

*At first farmers thought that the research team was giving them something (e.g, counsel/advice, seeds, fertilizer, etc.) as is typical of most outside agriculture specialists with whom they have had any contact in the past. The confusion was eventually broken when they presented themselves as being there "to be their students for awhile,....to see what we could learn from them," rather than the opposite case. The farmers found this idea quite pleasing, and now the problem is not so much how to get information, but rather what to do with all that is now freely offered.

C. UTAH STATE UNIVERSITY SPECIAL FOCUS:

PLAN MERIS I

IMPROVED WATER AND LAND USE IN THE SIERRA - PERU

The major goal of this project is "to improve water and land use in the watershed of the Crisnejas, Condebamba, and Cajamarca Rivers." The activities to help accomplish this goal are detailed in the Plan of Work and in the Project Paper.

PROJECT IMPLEMENTATION

Organization and Staffing

The major technical assistance for the project is provided by Water Management Synthesis II, Utah State University and Cornell University. This interdisciplinary team was in Peru during September and October, 1984 to assist in developing the Plan of Work for the project. The team is scheduled to return to Peru during March and April and November and December of 1985.

Long-term project staff have been chosen to act as specialists to work with the WMS II team and will spend full-time at the project site. They will be led by a full-time Technical Field Team Leader selected by WMS II. This team is in place and assisted with the development of the Plan of Work and are now on the project implementing the Plan of Work. The team consists of four technical experts and a coordinator selected by Plan MERIS and approved by USAID/Peru. This team is also interdisciplinary in nature in order to cover the wide range of problems facing the project.

Counterpart Staff from Plan MERIS Cajamarca has been assigned to work with the two teams described above and have also been involved in the development of the Plan of Work and in the initial phase of project implementation.

Plan of Work

The first activity undertaken by the interdisciplinary teams described above was to develop a Plan of Work to cover the 14 months remaining for the project. This was accomplished during the months of September and October 1984. A major factor in the initial visit to the Cajamarca Department was to select subprojects suitable for a pilot study and research program. Following visits to all subprojects, San Marcos was selected as suitable for the Pilot Area. In order to provide sufficient scope for the studies and research required other subprojects were identified as satellites where additional work could be carried on as needed.

Major Activities

The major activities detailed in the Plan of Work include:

Data collection to establish bench mark data upon which to base comparisons and project progress. This will include data in all socio-economic aspects, irrigation and crop production parameters, training of Plan MERIS staff in extension and agricultural production technology, and a program of research in socio-economic factors and maximum economic crop production for the Sierra region of San Marcos. A detailed description of the activities can be found in the Plan of Work.

Implementation

Following the acceptance of the Plan of Work by USAID and Plan MERIS, the Technical Field Team Leader and his staff initiated project data collection at the field level. Farmers were contacted on the laterals selected for the initial study and agreements were made with them to carry out the project activities.

Technical assistance was provided by WMS II to design a water control system for the steeply sloping lands of the Huaylla Canal. The system will include sprinkler irrigation, terraces, syphon control systems, and the use of gated pipe to control water to increase the efficiency of irrigation and to collect data on the results of improved practices.

Training

A training program was initiated using the training modules in water management developed by Utah State University. The course material was handled by the technical specialists and will also be an ongoing activity of the project.

The initial experience in the use of the modules is interesting in that there is a tendency to emphasize the more technical aspects of the modules rather than give emphasis to the basic message and to find ways to initiate a practical field program in extension. Recommendations were made to overcome this problem and to focus the training towards developing extension personnel so they can implement a farmer training program in good water management. The next visit of the WMS II consultants will follow-up on the training program and provide further support for the Plan MERIS staff.

Program Focus

One of the major thrusts of this project is to strengthen the ability and competence of the Plan MERIS Staff and to expand on their own knowledge and abilities. This will take time and will require letting them struggle with new technology until they become familiar with it and develop confidence in their own ability to carry out improvement programs with the farmers. The WMS II staff visits will provide opportunity to review the progress of the work and to suggest ways to carry out the activities of the Plan of Work. The visit of the WMS II team scheduled in March and April, 1985 will be staggered to provide maximum support to initiating the research program.

VI. COMMITTEES

None reported this quarter

VII. ROSTER SUMMARY

One of the WMSII activities is the establishment of a human resource file or professional roster of persons interested in water management work. The lead university for this activity is Colorado State University.

In order to initiate the activity, a standard roster form was first developed. The form's purpose was to acquire relevant information in the areas of professional competence, education, U.S. work experience, overseas work experience, availability for overseas assignments, language competence, geographic preferences, as well as additional information. The form was then sent through AID and the Consortium for International Development systems. In addition, forms were sent to all persons who inquired about the project.

The solicited information was then stored on the microcomputer data base system for general usage by the project. Thus, the data is recorded, filed, retrievable, and can be summarized. The information can be retrieved utilizing such variables as primary discipline, experience, languages, availability, as well as others.

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 December 31, 1984, 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. & Agri. 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>
<u>Universities</u>	
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

DIFFERENT TITLES

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

PRIMARY DISCIPLINES

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

Summary Financial Report with Budget Comparison

For the Period October 1, 1982 through December 31, 1984

Fiscal Year 1983 Activities

	Total FY 1983 Work Plan Budget	Current Qtr. Period Expenditures	Cumulative Expenditures Inception to Date	Unexpended Balance	Percent of Budget Unexpended
<u>DIRECT COSTS:</u>					
Salaries & Benefits	\$1,447,419		1,328,461	118,958	8%
Travel & Per Diem	718,554	2,530	447,772	270,782	38%
Other Direct Costs	412,514		466,877	-54,362	-
Equipment	82,352		69,043	13,309	16%
Total Direct Costs	2,660,839	2,530	2,312,154	348,685	13%
<u>INDIRECT COSTS:</u>					
University	904,341		742,016	162,325	18%
CID G&A & DBA	323,255	89	228,027	95,228	29%
Total Indirect Costs	1,227,596	89	970,044	257,552	21%
TOTAL PROJECT COSTS	\$3,888,435	2,619	3,282,198	606,237	16%

Consortium for International Development
 Water Management Synthesis II
 Project Expenditure by University
 Cumulative to Date As Of December 31, 1984
 Fiscal Year 1983 Activities

	Colorado State University	Utah State University	Cornell University	Consortium for International Development	Total Costs
<u>DIRECT COSTS:</u>					
Salaries & Benefits	735,237	361,130	232,094	0	1,328,461
Travel & Per Diem	189,736	127,337	84,149	46,548	447,772
Other Direct Costs	146,880	138,947	58,703	122,347	466,877
Equipment	32,432	34,916	1,695		69,043
Total Direct Costs	<u>1,104,286</u>	<u>662,330</u>	<u>376,642</u>	<u>168,895</u>	<u>2,312,154</u>
<u>INDIRECT COSTS:</u>					
University	353,220	217,065	162,777	8,954	742,016
CID G&A & DBA	109,821	64,581	37,120	16,666	228,027
Total Indirect Costs	<u>463,041</u>	<u>281,646</u>	<u>199,897</u>	<u>25,620</u>	<u>970,044</u>
TOTAL PROJECT COSTS	<u><u>1,567,327</u></u>	<u><u>943,976</u></u>	<u><u>576,539</u></u>	<u><u>194,516</u></u>	<u><u>3,282,198</u></u>

FISCAL YEAR 1983 ACTIVITIES
SUMMARY BY ACTIVITY
CUMULATIVE AS OF DECEMBER 31, 1984

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
ADMINISTRATION					
Worldwide					
Overall Adm.	0-01-999-83	Overall	145,937.	145,778.	159
CU Administration	0-02-996-83	CU	222,672.	191,966.	30,706
USU Administration	0-02-997-83	USU	243,710.	212,733.	30,977
CSU Administration	0-02-998-83	CSU	281,382.	281,317.	65
CID Administration		CID	<u>0.</u>	<u>3,071.</u>	<u>-3,071</u>
TOTAL ADMINISTRATION			893,701.	834,865.	58,836
			=====	=====	=====
TECHNICAL ASSISTANCE					
Bangladesh					
BAU Collaboration Team	1-03-030-82A	CSU	74,418.	57,133.	17,285.
BAU Collaboration Team	1-03-030-82B	CU	9,825.	9,824.	1.
Consultant, Legal	1-03-029-82	CSU	19,185.	14,671.	4,514.
Scope of Work	1-02-006-82	CSU	26,749.	16,222.	10,527.
Water Mgmt. Systems	1-02-015-82A	CU	143,692.	96,264.	47,428.
Water Mgmt. Systems	1-02-015-82B	CID	10,595.	10,595.	0.
China					
Bell's Study Tour	1-02-038-83	CID	3,297.	2,617.	680.
Dominican Republic					
Project Paper (OFWM)	1-02-009-83	USU	93,755.	92,538.	1,217.
Project PID	1-02-010-82	USU	22,851.	20,563.	2,288.
Haiti					
Irrig. Project Eval.	1-02-039-83	USU	23,867.	25,082.	-1,215.
India					
Clyma's TDY	1-02-035-83	CSU	3,039.	2,888.	150.
DA Workshop Planning	1-02-044-83	CSU	28,149.	31,718.	-3,569.
Development of Solutions	1-02-024-82A	CSU	59,731.	57,014.	2,716.
Development of Solutions	1-02-024-82B	CID	4,205.	4,205.	0.
Evans Project Prep.	1-02-033-83	CSU	14,560.	12,580.	1,979.
Hill Area Land & Water Dev	1-02-013-83A	CU	126,759.	28,859.	97,900.
Hill Area Land & Water Dev	1-02-013-83B	USU	12,414.	12,414.	0.
Hill Area Land & Water Dev	1-02-013-83C	CID	1,776.	1,776.	0.

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
Institutional Analysis	1-02-047-83	CID	32,647.	21,498.	11,149.
Institutional Analysis	1-02-053-83	USU	26,725.	0.	26,725.
Olsen TDY	1-02-037-83B	CID	108.	108.	0.
Olson's TDY	1-02-037-83A	USU	21,295.	12,341.	8,954.
Water Mgmt. & Training	1-02-020-82A	CSU	27,991.	16,901.	11,090.
Water Mgmt. & Training	1-02-020-82B	USU	20,336.	24,025.	-3,689.
WM & Training	1-02-014-83A	CID	12,199.	11,511.	688.
WM & Training	1-02-014-83B	CID	12,199.	12,199.	0.
Indonesia					
Oad's TDY	1-02-030-83	CSU	14,408.	16,204.	-1,796.
Jordan					
Review of Curriculum	1-02-041-82	USU	12,161.	9,911.	2,249.
Mali					
OFWM Specialist	1-02-006-83	USU	20,698.	16,421.	4,276.
Pakistan					
Clyma's TDY	1-02-031-83	CSU	9,117.	8,164.	952.
Mayfield's TDY	1-02-040-83	USU	15,666.	15,504.	161.
WM (CWM) Meeting	1-02-029-83A	USU	2,466.	0.	2,466.
WM (CWM) Meeting	1-02-029-83B	CSU	9,931.	3,168.	6,762.
Peru					
Special Study	1-04-027-82A	USU	85,512.	63,071.	22,440.
Special Study	1-04-027-82B	CID	8,243.	8,242.	0.
Sri Lanka					
Various TDY's	1-02-008-82	CU	93,174.	67,471.	25,702.
Thailand					
Equipment Engineer	1-02-005-82	CID	31,107.	32,011.	-904.
Worldwide					
Water Resource Econ.	1-02-042-83	CSU	<u>19,703.</u>	<u>19,595.</u>	<u>107.</u>
TOTAL TECHNICAL ASSISTANCE			<u>1,154,553.</u>	<u>855,316.</u>	<u>299,236.</u>
			=====	=====	=====

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
TRAINING & TECHNOLOGY TRANSFER					
Bangladesh					
DA Workshop	2-02-007-82A	CSU	187,088.	201,898.	-14,810.
DA Workshop	2-02-007-82B	CID	32,086.	32,350.	-264.
Ecuador					
Equivar Video	2-03-054-83	USU	204,837.	204,695.	142.
India					
Measurement for Sys. Mgmt.	2-07-026-82A	CSU	12,758.	12,942.	-184.
Measurement for Sys. Mgmt.	2-07-026-82B	CID	4,382.	4,382.	0.
Senior Officials	2-04-007-83	USU	0.	1,054.	-1,054.
Watercourse Handbooks	2-13-025-82A	CSU	15,188.	17,437.	-2,249.
Watercourse Handbooks	2-13-025-82B	CID	CSU	2,780.	-2,780.
Nepal					
Small Scale Systems	2-14-050-83	CU	41,774.	41,554.	220.
Philippines					
Video Production	2-03-049-83A	CU	8,122.	0.	8,122.
Video Production	2-03-049-83B	CID	CU	2,950.	-2,950.
Sri Lanka					
DA Workshop	2-02-028-83	CSU	113,739.	120,441.	1,034.
DA Workshop - WID	2-02-034-83	CSU	16,154.	16,387.	-233.
Video Production	2-03-048-83	CU	8,122.	0.	8,122.
Thailand					
Improving Allocations	2-14-062-83	CID	44,250.	44,221.	29.
Worldwide					
Brochures; Newsletters; Pub	2-12-018-83	CSU	8,435.	8,422.	13.
Computer Applications	2-10-022-83	CSU	70,020.	69,733.	287.
FAO/AID Workshop Planning	2-14-064-83	CU	2,626.	2,141.	485.
Increasing WM Cap.	2-11-020-83A	OVERALL	29,857.	21,606.	8,251.
Increasing WM Cap.	2-11-020-83B	USU	18,237.	18,202.	35.
Increasing WM Cap.	2-11-020-83C	CU	9,475.	10,394.	-919.
Short-Term Non-Degree	2-08-056-83	USU	37,909.	27,794.	10,115.
Start-up Workshop	2-14-051-83	CU	15,150.	11,833.	3,317.
Start-up Workshop	2-14-055-83	USU	22,228.	15,159.	7,069.
Survey & Strat. for Train.	2-09-019-83	CSU	34,267.	33,441.	826.
Videotape Modules	2-03-021-83	CSU	90,755.	90,747.	8.
Workshop (Tech. & Soc. Asp)	2-04-023-83	CSU	61,398.	63,243.	-1,845.
TOTAL TRAINING & TECHNOLOGY TRANSFER			1,088,857.	1,075,808.	13,048.
			=====	=====	=====

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
SPECIAL STUDIES					
Africa					
Dev. of Social Parameters	3-04-057-83	USU	67,039.	55,598.	11,441.
Worldwide					
Action Research	3-04-060-83	USU	82,384.	6,474.	75,910.
Communication of Tech Tran	3-04-024-83	CSU	52,783.	52,760.	23.
DA Evaluation	3-04-063-83	CID	7,163.	0.	7,163.
Development of Handbook	3- - -	USU	0.	4,615.	-4,615.
Farmer Participation Exp.	3-04-046-83	CU	80,018.	15,469.	64,549.
Irrig. Systems Mgmt.	3-04-025-83	CSU	156,507.	156,496.	11.
Main System Mgmt.	3-04-059-83A	USU	64,521.	87,419.	-22,898.
Main System Mgmt.	3-04-059-83B	CSU	14,716.	14,788.	-72.
Monitoring Projects	3-04-061-83	USU	18,350.	0.	18,350.
On-Farm Irrig. Sys. Sel.	3-04-058-83	USU	47,146.	18,358.	28,788.
Small Scale Irrig.	3-04-045-83A	CU	157,281.	100,763.	56,518.
Small Scale Irrig.	3-04-045-83B	CSU	<u>3,416.</u>	<u>3,416.</u>	<u>0.</u>
TOTAL SPECIAL STUDIES			<u>751,324.</u> =====	<u>516,207.</u> =====	<u>235,116.</u> =====
TOTAL FY83 ACTIVITIES			3,888,435.	3,282,198.	606,236.

WATER MANAGEMENT SYNTHESIS II CSU QUARTERLY FINANCIAL REPORT AS OF DECEMBER 31, 1984 FY-83 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
UNIVERSITY SUPPORT ACTIVITIES CSU Administration 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
TOTAL UNIV SUPPORT	<u>124,502.99</u> *****	<u>2,895.48</u> *****	<u>52,709.92</u> *****	<u>19,203.61</u> *****	<u>64,174.35</u> *****	<u>263,486.35</u> *****	<u>17,830.73</u> *****	<u>281,317.08</u> *****	<u>281,382.00</u> *****
TECHNICAL ASSISTANCE Bangladesh									
Scope of Work 1-02-006-82	5,212.05	5,750.41	75.25		3,973.58	15,011.29	1,210.25	16,221.54	26,749.00
Consultant Legal 1-03-029-82	5,868.10	4,135.00			3,601.12	13,604.22	1,056.96	14,671.18	19,185.00
BAU Collaboration 1-03-030-82	20,928.39	10,207.73	9,208.20		12,600.29	52,944.61	4,188.10	57,132.71	74,418.00
Total Bangladesh	<u>32,008.54</u> =====	<u>20,093.14</u> =====	<u>9,283.45</u> =====	<u>0.00</u> =====	<u>20,174.99</u> =====	<u>81,560.12</u> =====	<u>6,465.31</u> =====	<u>88,025.43</u> =====	<u>120,352.00</u> =====
India									
Water Mgmt. & Tr 1-02-020-82a	5,415.10	6,073.40			4,135.86	15,624.36	1,276.74	16,901.10	27,991.00
Project Prep-Evans 1-02-033-83	4,034.33	4,545.00			3,088.55	11,667.88	912.78	12,580.66	14,560.00
Clyma (TDY) 1-02-035-83	1,224.37	739.29			706.91	2,670.57	217.65	2,888.22	3,039.00
DA Planning 1-02-044-83	17,523.03	4,001.85	158.30		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		10,624.75	52,268.08	4,746.22	57,014.30	59,731.00
Total India	<u>55,778.53</u> =====	<u>27,585.84</u> =====	<u>1,993.63</u> =====	<u>0.00</u> =====	<u>26,362.01</u> =====	<u>111,720.01</u> =====	<u>9,382.88</u> =====	<u>121,102.89</u> =====	<u>133,470.00</u> =====
Indonesia									
Oad (TDY) 1-02-030-83	4,527.23	7,360.47	84.03		2,951.06	14,922.79	1,281.76	16,204.55	14,408.00
Total Indonesia	<u>4,527.23</u> =====	<u>7,360.47</u> =====	<u>84.03</u> =====	<u>0.00</u> =====	<u>2,951.06</u> =====	<u>14,922.79</u> =====	<u>1,281.76</u> =====	<u>16,204.55</u> =====	<u>14,408.00</u> =====
Pakistan									
Clyma (TDY) 1-02-031-83	2,448.73	3,115.57			2,003.15	7,567.45	597.36	8,164.81	9,117.00
WM (CWM) Meeting 1-02-029-83B	2,143.48				771.66	2,915.14	253.05	3,168.19	9,931.00
Total Pakistan	<u>4,592.21</u> =====	<u>3,115.57</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>2,774.81</u> =====	<u>10,482.59</u> =====	<u>850.41</u> =====	<u>11,333.00</u> =====	<u>19,048.00</u> =====
Worldwide									
Water Resource Eco 1-02-042-83	12,489.75	699.77	251.54		4,824.03	18,265.09	1,330.66	19,595.75	19,703.00
Total Worldwide	<u>12,489.75</u> =====	<u>699.77</u> =====	<u>251.54</u> =====	<u>0.00</u> =====	<u>4,824.03</u> =====	<u>18,265.09</u> =====	<u>1,330.66</u> =====	<u>19,595.75</u> =====	<u>19,703.00</u> =====
TOTAL TECH. ASSIST.	<u>109,396.26</u> *****	<u>58,854.79</u> *****	<u>11,612.65</u> *****	<u>0.00</u> *****	<u>57,086.90</u> *****	<u>236,950.60</u> *****	<u>19,311.02</u> *****	<u>256,261.62</u> *****	<u>306,981.00</u> *****

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WATER MANAGEMENT SYNTHESIS II CSU QUARTERLY FINANCIAL REPORT AS OF DECEMBER 31, 1984 FY-83 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
TRAINING & TECH TRAN									
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	187,088.00
Total Bangladesh	91,120.64	38,550.56	13,343.23	790.00	43,310.12	187,114.55	14,783.41	201,897.96	187,088.00
India									
Watercourse Hand									
2-13-025-82	9,254.38	2,524.92	56.50		4,260.89	16,096.69	1,340.12	17,436.81	15,188.00
Measurement Sys									
2-07-026-82	4,856.07	4,804.55	39.20		2,133.96	11,833.78	1,108.39	12,942.17	12,758.00
Total India	14,110.45	7,329.47	95.70	0.00	6,394.85	27,930.47	2,448.51	30,378.98	27,946.00
Sri Lanka									
WID - DA Workshop									
2-02-034-83	6,290.47	5,691.75	20.49		3,133.46	15,136.17	1,251.05	16,387.22	16,154.00
DA Workshop									
2-02-028-83	41,876.78	32,538.65	11,444.43		25,736.14	111,596.00	8,845.04	120,441.04	113,739.00
Total Sri Lanka	48,167.25	38,230.40	11,464.92	0.00	28,869.60	126,732.17	10,096.09	136,828.26	129,893.00
Worldwide									
Brochures, Etc.									
2-12-018-83	4,921.11		851.43		2,078.12	7,850.66	571.48	8,422.14	8,435.00
Survey & Strat.									
2-09-019-83	21,376.93	749.34	1,031.35		7,991.12	31,148.74	2,292.60	33,441.34	34,267.00
Videotape Modules									
2-03-021-83	33,483.33	17,850.43	13,524.80		19,229.91	84,088.47	6,658.67	90,747.14	90,755.00
Computer Appl.									
2-10-022-83	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
Increasing WM Cap.									
2-11-020-83	4,211.39	8,101.62	2,867.00		4,878.00	20,058.01	1,547.90	21,605.91	29,857.00
Tech. & Soc Wksp									
2-04-023-83	27,852.47	403.35	16,748.17		13,783.93	58,787.92	4,455.40	63,243.32	61,398.00
Total Worldwide	125,580.88	27,559.30	42,611.98	9,474.64	62,304.01	267,530.81	19,662.21	287,193.02	294,732.00
TOTAL TRAINING & TECHNOLOGY TRANSFER	278,979.22	111,669.73	67,515.83	10,264.64	140,878.58	609,308.00	46,990.22	656,298.22	639,659.00

WATER MANAGEMENT SYNTHESIS II CSU QUARTERLY FINANCIAL REPORT AS OF DECEMBER 31, 1984 FY-83 ACTIVITIES

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CIU G&A &DBA	ACTIVITY TOTAL	BUDGET
SPECIAL STUDIES									
Worldwide									
Comm for Tech Tran 3-04-024-83	34,812.52	594.50	754.90		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				3,602.08	13,607.86	1,180.56	14,788.42	14,716.00
Small Scale Irrg. 3-04-045-83b	0.00	2,341.00			843.00	3,184.00	231.76	3,415.76	3,416.00
Irrigation System 3-04-025-83	99,136.32	7,207.94	1,019.12		38,393.09	145,756.47	10,790.18	156,546.65	156,507.00
Total Worldwide	<u>143,954.62</u>	<u>10,143.44</u>	<u>1,774.02</u>	<u>0.00</u>	<u>55,856.46</u>	<u>211,728.54</u>	<u>15,782.53</u>	<u>227,511.07</u>	<u>227,422.00</u>
TOTAL SPECIAL STUDIES	143,954.62	10,143.44	1,774.02	0.00	55,856.46	211,728.54	15,782.53	227,511.07	227,422.00
OVERALL ADMINISTRATION									
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 OVERALL ADM.	<u>78,403.94</u>	<u>6,173.33</u>	<u>13,267.36</u>	<u>2,963.60</u>	<u>35,224.06</u>	<u>136,032.29</u>	<u>9,746.10</u>	<u>145,778.39</u>	<u>145,937.00</u>
TOTAL AS OF 12/31/84	<u>735,237.03</u>	<u>189,736.77</u>	<u>146,879.78</u>	<u>32,431.85</u>	<u>353,220.35</u>	<u>1,457,505.78</u>	<u>109,660.60</u>	<u>1,567,166.38</u>	<u>1,601,381.00</u>

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
<u>UNIVERSITY SUPPORT</u>									
USU Administration 0-01-997-83	<u>100,394.73</u>	<u>11,304.90</u>	<u>11,017.66</u>	<u>34,916.00</u>	<u>42,951.05</u>	<u>200,584.34</u>	<u>12,149.01</u>	<u>212,733.35</u>	<u>243,710</u>
<u>TECHNICAL ASSISTANCE</u>									
DOMINICAN REPUBLIC									
PID 1-02-010-82	4,495.75	4,513.69	5,108.00	-0-	4,941.10	19,058.54	1,504.67	20,563.21	22,851
PP 1-02-009-83	<u>7,287.10</u>	<u>23,220.61</u>	<u>33,235.94</u>	<u>-0-</u>	<u>22,310.28</u>	<u>86,053.93</u>	<u>6,464.12</u>	<u>92,538.05</u>	<u>93,755</u>
TOTAL DOMINICAN REPUBLIC	<u>11,782.85</u>	<u>27,734.30</u>	<u>38,343.94</u>	<u>-0-</u>	<u>27,251.38</u>	<u>105,112.47</u>	<u>7,988.79</u>	<u>113,101.26</u>	<u>116,606</u>
HAITI									
Irrig. Proj. Evaluation 1-02-039-83	<u>5,511.65</u>	<u>5,077.00</u>	<u>6,630.93</u>	<u>-0-</u>	<u>6,026.85</u>	<u>23,246.43</u>	<u>1,835.97</u>	<u>25,082.40</u>	<u>23,867</u>
INDIA									
Hill Area Land & W 1-02-013-83	-0-	841.39	7,726.17	-0-	2,998.64	11,566.20	848.19	12,414.39	12,414.39
Water Mngt. & Train. 1-02-020-82b	-0-	4,121.07	12,459.50	-0-	5,803.21	22,383.78	1,641.48	24,025.26	20,336
Institutional Analysis 1-02-053-83	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	26,725
Olsen (TOY) 1-02-037-83	<u>7,964.49</u>	<u>247.00</u>	<u>174.23</u>	<u>-0-</u>	<u>2,935.01</u>	<u>11,320.73</u>	<u>1,019.82</u>	<u>12,340.55</u>	<u>21,295</u>
TOTAL INDIA	<u>7,964.49</u>	<u>5,209.46</u>	<u>20,359.90</u>	<u>-0-</u>	<u>11,736.86</u>	<u>45,270.71</u>	<u>3,509.49</u>	<u>48,780.20</u>	<u>68,356</u>
JORDAN									
Curr. Development 1-02-041-82	<u>2,390.32</u>	<u>4,334.13</u>	<u>76.76</u>	<u>-0-</u>	<u>2,380.42</u>	<u>9,181.63</u>	<u>730.24</u>	<u>9,911.87</u>	<u>12,161</u>
MALI									
Mali 1-02-006-83	<u>6,086.40</u>	<u>4,845.93</u>	<u>322.57</u>	<u>-0-</u>	<u>3,939.22</u>	<u>15,194.12</u>	<u>1,227.25</u>	<u>16,421.37</u>	<u>20,698</u>
PERU									
Special Study 1-04-027-82	<u>31,541.30</u>	<u>6,290.89</u>	<u>6,179.68</u>	<u>-0-</u>	<u>14,083.80</u>	<u>58,095.67</u>	<u>4,976.06</u>	<u>63,071.73</u>	<u>85,512</u>

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIP. ENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
PAKISTAN									
Mayfield									
1-02-040-83	-0-	4,987.20	5,606.00	-0-	3,707.62	14,300.82	1,203.73	15,504.55	15,566
WM (CWM) Meeting									
1-02-029-83a	-0-								2,466
TOTAL PAKISTAN	<u>-0-</u>	<u>4,987.20</u>	<u>5,606.00</u>	<u>-0-</u>	<u>3,707.62</u>	<u>14,300.82</u>	<u>1,203.73</u>	<u>15,504.55</u>	<u>18,132</u>
TOTAL TECH. ASSISTANCE	<u>65,277.01</u>	<u>58,478.91</u>	<u>77,519.78</u>	<u>-0-</u>	<u>69,126.15</u>	<u>270,401.85</u>	<u>21,471.53</u>	<u>291,873.38</u>	<u>345,332</u>
<u>TRAINING AND TECHNOLOGY TRANSFER</u>									
ECUADOR									
Ecuavir Video									
2-03-054-83	<u>97,022.50</u>	<u>9,519.05</u>	<u>34,432.22</u>	<u>-0-</u>	<u>49,340.82</u>	<u>190,314.59</u>	<u>14,380.29</u>	<u>204,694.88</u>	<u>204,837</u>
INDIA									
Senior Officials Wksp.									
2-04-007-83	<u>-0-</u>	<u>-0-</u>	<u>727.50</u>	<u>-0-</u>	<u>254.63</u>	<u>982.13</u>	<u>72.02</u>	<u>1,054.15</u>	<u>-0-</u>
WORLDWIDE									
Increasing WM Cap.									
2-11-020-83	6,683.20	5,706.36	86.08	-0-	4,366.47	16,842.11	1,360.04	18,202.15	18,237. CSU
Start Up Workshop									
2-14-055-83	5,970.53	4,490.59	.88	-0-	3,661.70	14,123.70	1,035.74	15,159.44	22,228
Short Term Training									
2-08-056-83	<u>11,521.95</u>	<u>1,533.00</u>	<u>6,532.00</u>	<u>-0-</u>	<u>6,267.82</u>	<u>25,854.77</u>	<u>1,939.11</u>	<u>27,793.88</u>	<u>37,909</u>
TOTAL WORLDWIDE	<u>24,175.68</u>	<u>11,729.95</u>	<u>6,618.96</u>	<u>-0-</u>	<u>14,295.99</u>	<u>56,820.58</u>	<u>4,334.89</u>	<u>61,155.47</u>	<u>60,137</u>
TOTAL TRAINING AND TECHNOLOGY TRANSFER	<u>121,198.18</u>	<u>21,249.00</u>	<u>41,778.68</u>	<u>-0-</u>	<u>63,891.44</u>	<u>248,117.30</u>	<u>18,787.20</u>	<u>266,904.50</u>	<u>264,974</u>

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
<u>SPECIAL STUDIES</u>									
AFRICA									
Dev. of Social Para. 3-04-057-83	<u>24,346.82</u>	<u>13,577.81</u>	<u>303.78</u>	<u>-0-</u>	<u>13,379.94</u>	<u>51,608.35</u>	<u>3,989.82</u>	<u>55,598.17</u>	<u>67,039</u>
WORLDWIDE									
On-Farm Irrigation Sys. 3-04-058-83	12,475.53	372.50	89.10	-0-	4,139.88	17,077.01	1,280.78	18,357.79	47,146
Dev. of Handbook 3- - -83	3,200.75	-0-	51.51	-0-	1,040.72	4,292.98	321.97	4,614.95	-0-
Main System Mgmt. 3-04-059-83	29,737.48	22,354.19	8,123.53	-0-	21,075.32	81,290.52	6,128.55	87,419.07	64,521
Action Research 3-04-060-83	4,500.00	-0-	62.71	-0-	1,460.07	6,022.78	451.71	6,474.49	82,384
Monitor Project Tech. 3-04-061-83									18,350
TOTAL WORLOWIDE	<u>49,913.76</u>	<u>22,726.69</u>	<u>8,326.85</u>	<u>-0-</u>	<u>27,715.99</u>	<u>108,683.29</u>	<u>8,183.01</u>	<u>116,866.30</u>	<u>212,401</u>
TOTAL SPECIAL STUDIES	<u>74,260.58</u>	<u>36,304.50</u>	<u>8,630.63</u>	<u>-0-</u>	<u>41,095.93</u>	<u>160,291.64</u>	<u>12,172.83</u>	<u>172,464.47</u>	<u>279,440</u>
TOTAL AS OF 12/31/84	<u>361,130.50</u>	<u>127,337.31</u>	<u>138,946.75</u>	<u>34,916.00</u>	<u>217,064.57</u>	<u>879,395.13</u>	<u>64,580.57</u>	<u>943,975.70</u>	<u>1,143,456</u>

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WATER MANAGEMENT SYNTHESIS II
 CONSORTIUM FOR INTERNATIONAL DEVELOPMENT
 FINANCIAL REPORT AS OF 12/31/84
 F/Y 83 ACTIVITIES

	<u>Salaries & Benefits</u>	<u>Travel & Per Diem</u>	<u>Consultant Fees</u>	<u>Other Direct Costs</u>	<u>Equipment</u>	<u>Indirect Costs</u>	<u>University Costs</u>	<u>CID G&A DBA</u>	<u>Total Activity</u>	<u>Budget</u>
<u>UNIVERSITY SUPPORT ACTIVITIES</u>										
CID Executive Office	\$	\$3,070.67	\$	\$	\$	\$	\$ 3,070.67	\$ 0.00	\$ 3,070.67	\$ 0.00
TOTAL UNIVERSITY SUPPORT	<u>0.00</u>	<u>3,070.67</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>3,070.67</u>	<u>0.00</u>	<u>3,070.67</u>	<u>0.00</u>
<u>TECHNICAL ASSISTANCE</u>										
Bangladesh Water Mgmt. Syst. 1-02-015-82				9,640.98			9,640.98	954.46	10,595.44	10,595.44
Total Bangladesh	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>9,640.98</u>	<u>0.00</u>	<u>0.00</u>	<u>9,640.98</u>	<u>954.46</u>	<u>10,595.44</u>	<u>10,595.44</u>
China Bell's Tour 1-02-038-83				2,380.84			2,380.84	235.70	2,616.54	3,297.00
Total China	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>2,380.84</u>	<u>0.00</u>	<u>0.00</u>	<u>2,380.84</u>	<u>235.70</u>	<u>2,616.54</u>	<u>3,297.00</u>
India WM & Training 1-02-014-83a			10,474.00				10,474.00	1,036.93	11,510.93	12,198.90
WM & Training 1-02-014-83b			11,100.00				11,100.00	1,098.90	12,198.90	12,198.90
Dev. of Solutions 1-02-024-82				3,826.06			3,826.06	378.78	4,204.84	4,205.00
Hill Area 1-02-013-83				1,616.00			1,616.00	159.98	1,775.98	1,776.00
Olsen (TDY) 1-02-037-83				98.00			98.00	9.70	107.70	108.00
Institutional Analysis 1-02-047-83		3,353.84	11,117.14	1,491.14		3,705.68	19,667.80	1,830.39	21,498.19	32,647.00
Total India	<u>0.00</u>	<u>3,353.84</u>	<u>32,691.14</u>	<u>7,031.20</u>	<u>0.00</u>	<u>3,705.68</u>	<u>46,781.86</u>	<u>4,514.68</u>	<u>51,296.54</u>	<u>63,133.80</u>
Peru Special Study 1-04-027-82			7,500.00				7,500.00	742.50	8,242.50	8,243.00
Total Peru	<u>\$0.00</u>	<u>\$ 0.00</u>	<u>\$7,500.00</u>	<u>\$ 0.00</u>	<u>\$0.00</u>	<u>\$ 0.00</u>	<u>\$ 7,500.00</u>	<u>\$ 742.50</u>	<u>\$ 8,242.50</u>	<u>\$ 8,243.00</u>

WATER MANAGEMENT SYNTHESIS II
 CONSORTIUM FOR INTERNATIONAL DEVELOPMENT
 FINANCIAL REPORT AS OF 12/31/84
 F/Y 83 ACTIVITIES

	<u>Salaries & Benefits</u>	<u>Travel & Per Diem</u>	<u>Consultant Fees</u>	<u>Other Direct Costs</u>	<u>Equipment</u>	<u>Indirect Costs</u>	<u>University Costs</u>	<u>CID C&A DBA</u>	<u>Total Activity</u>	<u>Budget</u>
<u>TECHNICAL ASSISTANCE, cont.</u>										
Thailand Equipment Eng. 1-02-005-82	\$	\$	\$29,128.10	\$	\$	\$	\$ 29,128.10	\$ 2,883.68	\$ 32,011.78	31,107.30
Total Thailand	0.00	0.00	29,128.10	0.00	0.00	0.00	29,128.10	2,883.68	32,011.78	31,107.30
TOTAL TECHNICAL ASSISTANCE	0.00	3,353.84	69,319.24	19,053.02	0.00	3,705.68	95,431.78	9,331.02	104,762.80	\$116,376.54
<u>TRAINING & TECH. TRANSFER</u>										
Bangladesh DA 2-02-007-82				29,435.70			29,435.70	2,914.13	32,349.83	\$ 32,086.00
Total Bangladesh	0.00	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 Meas. for Sys. Mgmt. 2-07-026-82		2,530.23		3,986.88			2,530.23	250.49	2,780.72	CSU
Total India	0.00	2,530.23	0.00	3,986.88	0.00	0.00	3,986.88	394.70	4,381.58	4,382.00
Thailand Improv. Alloc. 2-14-062-83		34,909.11		552.56		5,248.33	40,710.00	3,510.71	44,220.71	44,250.00
Total Thailand	0.00	34,909.11	0.00	552.56	0.00	5,248.33	40,710.00	3,510.71	44,220.71	44,250.00
Philippines Video Productions 2-03-049-83		2,684.50					2,684.50	265.77	2,950.27	CU
Total Philippines	0.00	2,684.50	0.00	0.00	0.00	0.00	2,684.50	265.77	2,950.27	0.00
TOTAL TRAINING & TECH. TRANSFER	0.00	40,123.84	0.00	33,975.14	0.00	5,248.33	79,347.31	7,335.80	86,683.11	\$ 80,718.00
TOTAL AS OF 12/31/84	\$0.00	\$46,548.35	\$69,319.24	\$53,028.16	\$0.00	\$8,954.01	\$177,849.76	\$16,666.82	\$194,516.58	\$197,094.54

Consortium for International Development
 Water Management Synthesis II
 Summary Financial Report with Budget Comparison
 For the Period October 1, 1983 through December 31, 1984
 Fiscal Year 1984 Activities

	Total FY 1984 Work Plan Budget	Current Qtr. Period Expenditures	Cumulative Expenditures Inception to Date	Unexpended Balance	Percent of Budget Unexpended
<u>DIRECT COSTS:</u>					
Salaries & Benefits	2,724,077	285,989	1,493,822	1,230,255	45%
Travel & Per Diem	1,064,393	148,598	469,018	595,375	56%
Other Direct Costs	955,805	110,830	609,823	345,982	36%
Equipment	117,450	6,890	22,871	94,579	81%
Total Direct Costs	4,861,725	552,308	2,595,535	2,265,190	47%
<u>INDIRECT COSTS:</u>					
Washington	17,342			17,342	100%
University	1,383,599	148,248	827,787	555,812	40%
CID G&A & DBA	484,165	57,542	265,785	218,380	45%
Total Indirect Costs	1,885,106	205,791	1,093,573	791,533	42%
TOTAL PROJECT COSTS	6,744,281	758,099	3,689,108	3,055,173	45%

Consortium for International Development
 Water Management Synthesis II
 Project Expenditure by University
 Cumulative to Date As Of December 31, 1984
 Fiscal Year 1984 Activities

	Colorado State University	Utah State University	Cornell University	Consortium for International Development	Total Costs
<u>DIRECT COSTS:</u>					
Salaries & Benefits	715,645	500,367	277,809		1,493,822
Travel & Per Diem	133,788	195,424	75,158	64,647	469,018
Other Direct Costs	110,919	306,917	56,875	135,110	609,823
Equipment	8,273	10,693	3,904		22,871
Total Direct Costs	<u>968,626</u>	<u>1,013,402</u>	<u>413,747</u>	<u>199,757</u>	<u>2,595,535</u>
<u>INDIRECT COSTS:</u>					
University	311,706	320,867	191,906	3,308	827,787
CID G&A & DBA	98,244	105,952	40,574	21,014	265,785
Total Indirect Costs	<u>409,950</u>	<u>426,819</u>	<u>232,480</u>	<u>24,323</u>	<u>1,093,573</u>
TOTAL PROJECT COSTS	<u><u>1,378,577</u></u>	<u><u>1,440,222</u></u>	<u><u>646,228</u></u>	<u><u>224,080</u></u>	<u><u>3,689,108</u></u>

FISCAL YEAR 1984 ACTIVITIES
SUMMARY BY ACTIVITY
CUMULATIVE AS OF DECEMBER 31, 1984

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
ADMINISTRATION					
Worldwide					
CSU Administration	0-02-998-84	CSU	237,618.	238,396.	-778.
EPD Administration	0-01-999-84A	EPD	180,531.	151,011.	29,519.
EPD Administration	0-01-999-84B	CID		804.	-804.
USU Administration	0-02-997-84	USU	230,911.	228,956.	1,954.
CU Administration	0-02-996-84	CU	<u>201,270.</u>	<u>201,968.</u>	<u>-698.</u>
TOTAL ADMINISTRATION			850,330.	821,138.	29,191.
			=====	=====	=====
TECHNICAL ASSISTANCE					
Africa					
Irrigation Overview	1-02-108-84A	USU	139,300.	77,477.	61,822.
Irrigation Overview	1-02-108-84B	CSU		10,688.	-10,688.
Bangladesh					
Water Mgmt. Sys. Proj. Pap.	1-02-072-84	CU	20,719.	20,440.	278.
Burma					
Wakema Pump Scheme Study	1-02-036-84	CU	4,759.	4,358.	400.
Dominican Republic					
Water Mgmt. Spec.	1-02-110-84	CSU	26,813.	16,903.	9,909.
Weed Control Specialist	1-02-091-84	USU	3,354.	3,117.	236.
El Salvador					
Evaluation Team	1-02-107-84A	CID	107,449.	99,715.	7,733.
Evaluation Team	1-02-107-84B	CSU		7,374.	-7,374.
Haiti					
Irrigation Sector Survey	1-04-017-84	USU	50,658.	40,384.	10,273.
India					
Curriculum Development	1-02-094-84	CSU	10,682.	10,991.	-309.
Hill Irrig. Proj. Prep II	1-02-074-84A	CU	61,218.	31,099.	30,118.
Hill Irrig. Proj. Prep II	1-02-074-84B	USU		60,911.	-60,911.
Hill Irrig. Proj. Prep II	1-02-074-84C	CID		3,628.	-3,628.
Eval. & Strategy Review	1-02-103-84A	USU	252,670.	96,192.	156,477.
Eval. & Strategy Review	1-02-103-84B			4,984.	-4,984.
Madya Pradesh Minor Irrig.	1-01-025-84A	USU	166,738.	0.	166,738.
Madya Pradesh Minor Irrig.	1-01-025-84B	CID		3,974.	-3,974.
Madya Pradesh Socio-Tech	1-02-023-84	USU	174,989.	17.	174,971.
Maharashtra Irrig. T & M	1-02-021-84A	USU	581,834.	201,442.	380,392.
Maharashtra Irrig. T & M	1-02-021-84B	CID		1,635.	-1,635.
Maharashtra Minor Irrig.	1-02-018-84A	USU	171,970.	108,152.	63,817.
Maharashtra Minor Irrig.	1-02-018-84B	CID		52,839.	-52,839.

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
TRAINING & TECHNOLOGY TRANSFER					
Africa					
Africa Workshop	2-14-113-84	CSU	14,333.	14,213.	119.
Bolivia					
Tarija Short Course	2-01-095-84A	CU	64,995.	116.	64,878.
Tarija Short Course	2-01-095-84B	USU	CU	5,052.	-5,052.
Ecuador					
Finishing Orig. Trng. Mod.	2-03-054-84	USU	161,176.	158,005.	3,170.
Instructional Manual	2-03-055-84	USU	23,788.	0.	23,788.
India					
DA Workshop Madya Pradesh	2-02-031-84A	CSU	135,470.	127,187.	8,282.
DA Workshop Madya Pradesh	2-02-031-84B	CSU	CSU	11,040.	-11,040.
DA Workshop - WID	2-02-090-84A	CID	21,980.	2,204.	19,775.
DA Workshop - WID	2-02-090-84B	CSU	CID	3,326.	-3,326.
Senior Officer's Workshop	2-04-053-84A	USU	74,360.	17,236.	57,123.
Senior Officer's Workshop	2-04-053-84B	CID	USU	16,031.	-16,031.
Indonesia					
DA Workshop	2-02-010-84	CSU	8,736.	8,156.	579.
Nepal					
DA Workshop Planning	2-02-003-84	CSU	12,286.	21,741.	-9,455.
Pakistan					
Command Water Management	2-06-114-84	CSU	774,905.	142,909.	631,995.
Senior Officer's Workshop	2-04-019-84	CSU	109,626.	32,939.	76,686.
Worldwide					
AID/FAO Expert Consul WM	2-14-067-84	CU	9,228.	14,102.	-4,874.
Brochures; Newsletters; Pub	2-12-044-84	CSU	39,976.	24,040.	15,935.
Conference	2-14-058-84	USU	18,623.	5,408.	13,214.
DA Review	2-02-080-84A	CID	0.	0.	0.
DA Review	2-02-080-84B	USU	CID	13,654.	-13,654.
DA Trainers Workshop	2-08-040-84	CSU	29,736.	11,694.	18,041.
FAO Workshop Participants	2-14-078-84	CID	26,000.	0.	26,000.
Farmer Participation Wksp	2-14-066-84A	CU	36,193.	19,589.	16,603.
Farmer Participation Wksp	2-14-066-84B	USU	CU	1,799.	-1,799.
Farmer Participation Wksp	2-14-066-84C	CSU	CU	2,835.	-2,835.
French Language Training	2-11-059-84	USU	10,650.	6,003.	4,646.
ICID Conference	2-04-048-84	CSU	20,678.	20,239.	438.
Increasing WM Cap.	2-11-081-84A	Overall	20,847.	1,898.	18,949.
Increasing WM Cap.	2-11-081-84B	CU	Overall	4,108.	-4,108.
Increasing WM Cap.	2-11-081-84C		Overall	6,367.	-6,367.
Increasing WM Cap.	2-11-081-84D		Overall	2,210.	-2,210.
Increasing WM Cap. Intern 1	2-11-037-84A	CID	6,367.	0.	6,367.
Increasing WM Cap. Intern 1	2-11-037-84B	CSU	CID	6,367.	-6,367.

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
Short Course	1-02-100-84A	USU	84,388.	60,242.	24,145
Short Course	1-02-100-84B	USU		7,870.	-7,870
Indonesia					
Small Scale Irrig. & Mgmt.	1-02-011-84A	CU	54,468.	60,011.	-5,543
Small Scale Irrig. & Mgmt.	1-02-011-84B	CSU	CU	47,178.	-47,178
Small Scale Irrig. & Mgmt.	1-02-011-84C	USU	CU	33,940.	-33,940
Jordan					
Irrigation Sector Study	1-04-013-84A	USU	31,429.	10,964.	20,464
Irrigation Secotr Study	1-04-013-84B	CID	USU	8,242.	-8,242
Sr. on Farm WM Advisor	1-02-014-84	USU	4,767.	2,684.	2,082
Pakistan					
Command Area Mgmt.	1-02-106-84A	USU	16,068.	11,048.	5,019.
Command Area Mgmt.	1-02-106-84B	USU	USU	2,959.	-2,959.
Long-Term Strategies	1-02-101-84A	USU	9,369.	1,033.	8,335.
Long-Term Strategies	1-02-101-84B	USU	USU	823.	-823.
Peru					
Expansion of Irrigation Sys	1-02-035-84A	USU	53,681.	42,615.	11,065.
Expansion of Irrigation Sys	1-02-035-84B	CID	USU	8,954.	-8,954.
Expansion of Irrigation Sys	1-02-035-84C	CU	USU	6,390.	-6,390.
Plan Meris	1-01-112-84A	USU	642,215.	70,880.	571,334.
Plan Meris	1-01-112-84B	USU	USU	4,820.	-4,820.
Senegal					
Bakel Small Irrig Perimeter	1-02-033-84	USU	56,681.	0.	56,681.
Sri Lanka					
Design Team	1-02-102-84A	CSU	172,000.	40,951.	131,048.
Design Team	1-02-102-84B	USU	CSU	4,676.	-4,676.
Farmer Organization Prog.	1-02-007-84	CU	64,466.	63,439.	1,026.
Long Term WM Specialist	1-01-109-84	CSU	233,313.	80,783.	152,529.
Water Mgmt. Central Support	1-01-022-84	CSU	58,984.	62,431.	-3,447.
Tanzania					
Tanzania Irrig. Stuy	1-02-082-84	USU	<u>12,567.</u>	<u>11,760.</u>	<u>806.</u>
TOTAL TECHNICAL ASSISTANCE			<u>3,267,549.</u>	<u>1,501,035.</u>	<u>1,766,514.</u>
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ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
Instructors Guide DA Work.	2-13-042-84	CSU	24,881.	24,968.	-87.
Irrig Sys Mgmt Task Force	2-14-060-84A	USU	44,284.	9,504.	34,779.
Main Sys. Mgmt Task Force	2-06-077-84	CU	7,557.	1,087.	6,469.
Microcomputer Applications	2-10-051-84	CSU	62,615.	57,569.	5,045.
Planning for Seminar	2-14-075-84	CU	9,889.	6,736.	3,152.
Professional Visitors	2-11-039-84	CSU	10,284.	6,480.	3,803.
Professional Vistors	2-11-068-84	CU	9,673.	754.	8,918.
Small Scale Irrg. Works	2-14-064-84	CU	47,163.	32,755.	14,407.
Survey & Strat. for Trng.	2-09-049-84	CSU	27,378.	13,914.	13,463.
Task Force, Organization SS	2-14-065-84A	CU	20,741.	5,773.	14,967.
Task Force, Organization SS	2-14-065-84B	USU	CU	9,062.	-9,062.
Task Force, Organization SS	2-14-065-84C	CSU	CU	723.	-723.
Workshop (Tech & Soc. Asp)	2-04-050-84	CSU	45,000.	44,999.	0.
TOTAL TRAINING & TECHNOLOGY TRANSFER			<u>1,929,418.</u>	<u>914,811.</u>	<u>1,041,606.</u>
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ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
SPECIAL STUDIES					
India					
Community Kuhls	3-04-099-84	CU	51,924.	0.	51,924.
Niger					
Small Scale Irr & WM	3-04-098-84	CU	5,508.	6,203.	-695.
Traditional & Dev. SSI	3-04-111-84	CU	14,825.	13,027.	1,797.
Sri Lanka					
Rehabilitation	3-04-097-84	CU	26,492.	18,796.	7,695.
Worldwide					
Interdisp. Irr. Sys. Sel.	3-04-062-84	USU	62,430.	34,561.	27,868.
Interfacing Farm & Mgmt.	3-04-045-84	CSU	223,239.	118,423.	104,815.
Main Sys Design, Mgmt, Reh	3-04-061-84A	USU	221,424.	107,065.	114,358.
Main Sys Design, Mgmt, Reh	3-04-061-84B	CSU	USU	27,237.	-27,237.
Main Sys Design, Mgmt, Reh	3-04-061-84C	USU	USU	1,146	-1,146.
Management Intensity	3-04-096-84	CU	67,738.	64,659.	3,078.
Partic. Compl.		CU	0.	15,074.	-15,074.
Small Scale Irrigation	3-04-069-84	CU	23,404.	45,927.	-22,523.
TOTAL SPECIAL STUDIES			<u>696,984.</u>	<u>452,123.</u>	<u>244,860.</u>
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TOTAL FY84 ACTIVITIES			6,744,281.	3,689,108.	3,055,172.

WATER MANAGEMENT SYNTHESIS II

CSU QUARTERLY FINANCIAL REPORT AS OF DECEMBER 31, 1984

FY-84 ACTIVITIES

PAGE 1

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
UNIVERSITY SUPPORT ACTIVITIES CSU Administration 0-02-998-84	126,946.70	5,889.39	30,638.72		58,737.71	222,212.52	16,184.01	238,396.53	237,618.00
TOTAL UNIV. SUPPORT	<u>126,946.70</u>	<u>5,889.39</u>	<u>30,638.72</u>	<u>0.00</u>	<u>58,737.71</u>	<u>222,212.52</u>	<u>16,184.01</u>	<u>238,396.53</u>	<u>237,618.00</u>
TECHNICAL ASSISTANCE Africa Irr. Strat. Prgm. 1-02-108-84	7,106.72	219.03			2,637.26	9,963.01	725.25	10,688.26	USU
Total Africa	<u>7,106.72</u>	<u>219.03</u>	<u>0.00</u>	<u>0.00</u>	<u>2,637.26</u>	<u>9,963.01</u>	<u>725.25</u>	<u>10,688.26</u>	<u>0.00</u>
Dominican Republic Water Mgmt. Spec. 1-02-110-84	6,030.78	2,141.66	3,339.35		4,144.24	15,656.03	1,247.21	16,903.24	26,813.00
Total Dominican Rep.	<u>6,030.78</u>	<u>2,141.66</u>	<u>3,339.35</u>	<u>0.00</u>	<u>4,144.24</u>	<u>15,656.03</u>	<u>1,247.21</u>	<u>16,903.24</u>	<u>26,813.00</u>
El Salvador Evaluation Team 1-02-107-84	4,557.50	187.12	309.73		1,819.56	6,873.91	500.38	7,374.29	CID
Total El Salvador	<u>4,557.50</u>	<u>187.12</u>	<u>309.73</u>	<u>0.00</u>	<u>1,819.56</u>	<u>6,873.91</u>	<u>500.38</u>	<u>7,374.29</u>	<u>0.00</u>
India Rajasthan WIP 1-02-027-84 Early TDY 1-02-094-84	0.00 7,113.51		311.62		2,673.04	10,098.17	893.45	10,991.62	10,682.00
Total India	<u>7,113.51</u>	<u>0.00</u>	<u>311.62</u>	<u>0.00</u>	<u>2,673.04</u>	<u>10,098.17</u>	<u>893.45</u>	<u>10,991.62</u>	<u>10,682.00</u>
Indonesia Small Scale Irr. 1-02-011-84	16,330.10	15,736.94	496.10		11,087.81	43,650.95	3,527.70	47,178.65	CJ
Total Indonesia	<u>16,330.10</u>	<u>15,736.94</u>	<u>496.10</u>	<u>0.00</u>	<u>11,087.81</u>	<u>43,650.95</u>	<u>3,527.70</u>	<u>47,178.65</u>	<u>0.00</u>
Sri Lanka WM Central Support 1-01-022-84 Long Term WM 1-01-109-84 Design Team 1-02-102-84	23,689.53 35,663.25 22,298.99	21,203.02 4,048.75 7,834.96	1,597.64 15,663.32 118.20	148.08 5,813.88	10,775.92 13,612.28 7,311.01	57,414.19 74,801.48 37,563.16	5,016.95 5,982.42 3,388.42	62,431.14 80,783.90 40,951.58	58,984.00 233,313.00 172,000.00
Total Sri Lanka	<u>81,651.77</u>	<u>33,086.73</u>	<u>17,379.16</u>	<u>5,961.96</u>	<u>31,699.21</u>	<u>169,778.83</u>	<u>14,387.79</u>	<u>184,166.62</u>	<u>464,297.00</u>
TOTAL TECH. ASSIST.	<u>122,790.38</u>	<u>51,371.48</u>	<u>21,835.96</u>	<u>5,961.96</u>	<u>54,061.12</u>	<u>256,020.90</u>	<u>21,281.78</u>	<u>277,302.68</u>	<u>501,792.00</u>

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
TRAINING & TECH TRAN									
Africa									
Africa									
2-14-113-84	4,929.51	4,659.35	89.35		3,484.15	13,162.36	1,050.77	14,213.13	14,333.00
Total Africa	<u>4,929.51</u>	<u>4,659.35</u>	<u>89.35</u>	<u>0.00</u>	<u>3,484.15</u>	<u>13,162.36</u>	<u>1,050.77</u>	<u>14,213.13</u>	<u>14,333.00</u>
India									
DA Workshop									
2-02-031-84	61,870.98	23,835.16	7,200.22		24,340.00	117,246.36	9,940.95	121,187.31	135,470.00
WID DA Workshop									
2-02-090-84	0.00	783.30	1,572.06		737.97	3,093.33	233.18	3,326.51	CID
Total India	<u>61,870.98</u>	<u>24,618.46</u>	<u>8,772.28</u>	<u>0.00</u>	<u>25,077.97</u>	<u>120,339.69</u>	<u>10,174.13</u>	<u>130,513.82</u>	<u>135,470.00</u>
Indonesia									
DA Workshop									
2-02-010-84	2,848.70	890.31	1,886.33		1,973.88	7,599.22	556.91	8,156.13	8,736.00
Total Indonesia	<u>2,848.70</u>	<u>890.31</u>	<u>1,886.33</u>	<u>0.00</u>	<u>1,973.88</u>	<u>7,599.22</u>	<u>556.91</u>	<u>8,156.13</u>	<u>8,736.00</u>
Nepal									
DA Workshop Plann1									
2-02-003-84	6,260.40	7,379.40	1,566.13		5,000.85	20,206.78	1,535.00	21,741.78	12,286.00
Total Nepal	<u>6,260.40</u>	<u>7,379.40</u>	<u>1,566.13</u>	<u>0.00</u>	<u>5,000.85</u>	<u>20,206.78</u>	<u>1,535.00</u>	<u>21,741.78</u>	<u>12,286.00</u>
Pakistan									
Senior Off. WS									
2-04-019-84	16,894.78	4,247.11	1,434.64		8,127.54	30,704.07	2,235.08	32,939.15	109,626.00
Command Water Mgmt									
2-06-114-84	78,448.41	14,842.51	7,485.59		31,941.23	132,717.74	10,192.12	142,909.86	774,905.00
Total Pakistan	<u>95,343.19</u>	<u>19,089.62</u>	<u>8,920.23</u>	<u>0.00</u>	<u>40,068.77</u>	<u>163,421.81</u>	<u>12,427.20</u>	<u>175,849.01</u>	<u>884,531.00</u>
Sri Lanka									
DA Workshop									
2-02-006-84	0.00					0.00		0.00	0.00
Total Sri Lanka	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>

WATER MANAGEMENT SYNTHESIS II

CSU QUARTERLY FINANCIAL REPORT AS OF DECEMBER 31, 1984 FY-84 ACTIVITIES

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CIU G&A &DBA	ACTIVITY TOTAL	BUDGET
TRAINING & TECH TRAN									
Worldwide									
CID DA Review									
2-02-080-84	0.00		0.00					0.00	
ICID Conference									
2-04-048-84	13,416.43		456.05		4,994.10	18,866.58	1,373.38	20,239.96	20,678.00
Tech. & Soc Wksp									
2-04-050-84	26,913.90	3,149.00	994.48		10,867.46	41,924.84	3,074.68	44,999.52	45,000.00
DA Trainers WS									
2-08-040-84	8,015.65				2,885.64	10,901.29	793.55	11,694.84	29,736.00
Survey & Strat.									
2-09-049-84	9,073.65		606.40		3,276.01	12,956.06	958.32	13,914.38	27,378.00
Computer Appl.									
2-10-51-84	27,713.42	129.00	10,743.12	2,311.60	12,852.15	53,749.29	3,819.97	57,569.26	62,615.00
Inc. WM Cap Int. 1									
2-11-037-84B	4,827.27				1,062.00	5,889.27	477.90	6,367.17	CID
Prof. Visitors									
2-11-039-84	2,670.27	1,700.01	71.69		1,599.11	6,041.08	439.76	6,480.84	10,284.00
Brochures, Etc.									
2-12-044-84	9,912.52	478.00	6,086.91		5,931.88	22,409.31	1,631.27	24,040.58	39,976.00
Instr Guide for WS									
2-13-042-84	16,138.67		950.00		6,151.92	23,240.59	1,727.52	24,968.11	24,881.00
Small Scale T.F.									
2-14-65-84	0.00	496.03			178.57	674.60	49.11	723.71	CJ
Farmer Part. Work									
2-14-66-84	0.00	1,943.50			699.63	2,643.13	192.41	2,835.54	CJ
Total Worldwide	<u>118,681.78</u>	<u>7,895.54</u>	<u>19,908.65</u>	<u>2,311.60</u>	<u>50,498.47</u>	<u>199,296.04</u>	<u>14,537.87</u>	<u>213,833.91</u>	<u>260,548.00</u>
TOTAL TRAINING & TECHNOLOGY TRANSFER	<u>289,934.56</u>	<u>64,532.68</u>	<u>41,142.97</u>	<u>2,311.60</u>	<u>126,104.09</u>	<u>524,025.90</u>	<u>40,281.88</u>	<u>564,307.78</u>	<u>1,315,904.00</u>

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
SPECIAL STUDIES									
Worldwide									
Interfacing Farm & 3-04-045-84	67,912.23	10,090.42	3,858.07		28,375.59	110,236.31	8,187.17	118,423.48	223,239.00
Main Sys. Design 3-04-061-84	18,523.93		81.56		6,697.97	25,303.46	1,933.68	27,237.14	USU
Total Worldwide	86,436.16	10,090.42	3,939.63	0.00	35,073.56	135,539.77	10,120.85	145,660.62	223,239.00
TOTAL SPECIAL STUDIES	86,436.16	10,090.42	3,939.63	0.00	35,073.56	135,539.77	10,120.85	145,660.62	223,239.00
TOTAL C.S.U.	626,107.80	131,883.97	97,557.28	8,273.56	273,976.48	1,137,799.09	87,868.52	1,225,667.61	2,278,553.00
OVERALL ADMINISTRATION									
CSU Overall Adm. 0-01-099-84	88,237.47	1,904.27	13,361.97		37,261.32	140,765.03	10,246.87	151,011.90	180,531.00
TOTAL OVERALL ADMIN.	88,237.47	1,904.27	13,361.97	0.00	37,261.32	140,765.03	10,246.87	151,011.90	180,531.00
Train & Tech Trans. Worldwide									
Increasing WM Cap. 2-11-081-84	1,300.60	0.00	0.00		468.21	1,768.81	128.76	1,897.57	20,847.00
Total Worldwide	1,300.60	0.00	0.00	0.00	468.21	1,768.81	128.76	1,897.57	20,847.00
TOTAL TRAIN. & TECH.	1,300.60	0.00	0.00	0.00	468.21	1,768.81	128.76	1,897.57	20,847.00
TOTAL OVERALL	89,538.07	1,904.27	13,361.97	0.00	37,729.53	142,533.84	10,375.63	152,909.47	201,378.00
TOTAL AS OF 12/31/84	715,645.87	133,788.24	110,919.25	8,273.56	311,706.01	1,280,332.93	98,244.15	1,378,577.08	2,479,931.00

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID USA & DBA	ACTIVITY TOTAL	BUDGET
UNIVERSITY SUPPORT									
USU ADMINISTRATION 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	230,911.00
TECHNICAL ASSISTANCE									
SRI LANKA DESIGN TEAM 1-02-102-84	499.37	2,693.84	102.77	0.00	1,054.71	4,350.69	326.30	4,676.99	CSU
AFRICA IRRIGATION OVERVIEW 1-02-108-84	28,711.06	9,059.21	16,830.11	0.00	17,472.12	72,072.50	5,405.44	77,477.94	139,300.00
DOMINICAN REPUBLIC WEED CONTROL SPECIAL. 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									
MAHARASHTRA MIP 1-02-018-84	16,723.82	25,221.57	33,849.08	0.00	24,254.23	100,048.70	8,104.29	108,152.99	171,570.00
SPECTO-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
MADHYA PRADESH MIP 1-01-025-84 (BUY-IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	166,738.00
MAHARASHTRA IT&M 1-01-021-84	59,552.70	43,593.36	30,426.76	10,563.04	42,743.30	186,879.16	14,563.64	201,442.80	581,834.00
STUTLER 1-02-074-84	5,315.38	5,402.92	189.86	0.00	3,490.61	14,398.77	1,199.50	15,598.27	CU
INDIA SHORT COURSE 1-02-100-84 (BUY-IN)	14,303.13	9,550.41	18,373.61	0.00	13,512.69	55,739.84	4,502.31	60,242.15	84,388.00
HILL AREA LAND & WATER 1-02-074-84	0.00	8,506.50	23,029.22	0.00	10,091.43	41,627.15	3,686.25	45,313.40	CU
IRRIG. SECTOR EVAL. 1-02-103-84	16,584.00	4,379.00	45,884.02	0.00	21,391.05	88,238.07	7,954.65	96,192.72	252,670.00
TOTAL INDIA	112,479.03	96,653.76	151,765.05	10,563.04	115,487.31	486,948.19	40,011.68	526,960.07	1,432,589.00
INDONESIA 1-02-11-84	7,487.45	15,634.52	677.60	0.00	7,615.86	31,415.43	1,524.63	33,940.06	CU

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
JORDAN									
IRRIG. SECTOR SURVEY 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 SPECIALIST 1-02-014-84	1,439.84	360.29	91.86	0.00	605.44	2,497.43	107.31	2,684.74	4,767.00
TOTAL JORDAN	7,784.58	1,341.86	392.07	0.00	3,045.92	12,564.43	1,005.09	13,649.52	36,196.00
HAITI									
IRRIG. SECTOR SURVEY 1-04-017-84	19,031.99	8,242.49	883.52	0.00	9,010.56	37,168.56	3,215.86	40,384.42	50,658.00
PAKISTAN									
LONG-TERM STRATEGIES 1-02-101-84 DFP	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
TOTAL PAKISTAN	0.00	1,723.55	6,790.75	0.00	2,724.58	11,238.88	842.92	12,081.80	25,437.00
PERU									
SM. & MEDIUM IRR. SYS. 1-02-035-84	0.00	2,711.02	5,135.50	0.00	2,510.89	10,357.41	891.39	11,248.80	53,681.00
GUSTAVO GOMEZ 1-02-035-84	0.00	7,874.52	14,009.00	0.00	7,002.73	28,886.25	2,480.91	31,367.16	
PLAN MERIS 1-01-112-84	6,254.44	12,914.07	30,216.44	0.00	15,803.18	65,188.13	5,692.26	70,880.39	642,215.00
TOTAL PERU	6,254.44	23,499.61	49,360.94	0.00	25,316.80	104,431.79	9,064.56	113,496.35	695,896.00
SENEGAL									
BALEL IRR. PER. ASSIST. 1-02-033-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56,681.00
TANZANIA									
IRRIG. STUDY 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	12,567.00
TOTAL IRR. ASSISTANCE	185,801.61	160,639.24	231,886.55	10,563.04	185,064.83	773,955.47	63,589.02	637,644.49	2,452,678.00

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Best Available Document

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
TRAINING AND TECHNOLOGY TRANSFER									
BOLIVIA									
2-01-095-84	1,487.98	2,046.78	1.93	0.00	1,131.74	4,668.43	383.61	5,052.04	CU
INDIA									
SENIOR OFFICER'S WORKSHOP									
2-04-053-84	0.00	2,185.62	9,847.79	0.00	3,850.76	15,884.37	1,351.90	17,236.27	74,360.00
ECUADOR									
FINISH. TRNG. MODULES									
2-03-054-84	105,567.16	1,664.83	4,117.83	0.00	35,631.94	146,981.76	11,023.63	158,005.39	161,176.00
INSTRUCTIONAL MANUAL									
2-03-055-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23,788.00
TOTAL ECUADOR	105,567.16	1,664.83	4,117.83	0.00	35,631.94	146,981.76	11,023.63	158,005.39	184,964.00
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	18,623.00
WORLDWIDE									
FRENCH LANG. TRNG.									
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	10,650.00
IRR. SYS. MGMT. TASK 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 TASK FORCE STUTLER									
2-14-065-84	0.00	1,329.36	5,057.50	0.00	2,043.80	8,430.68	632.30	9,062.98	CU
PARTIC. WORKSHOP									
2-14-066-84	0.00	1,268.00	0.00	0.00	405.76	1,673.76	125.53	1,799.29	CU
INCR. WATER MGMT. CAP									
2-11-081-84	0.00	4,403.47	83.65	0.00	1,435.88	5,923.00	444.22	6,367.22	EPD
DA REVIEW-BRAD PARR III									
2-02-080-84	4,961.22	4,549.62	33.30	0.00	3,054.12	12,598.26	1,056.50	13,654.76	CID
TOTAL WORLDWIDE	13,360.33	13,042.50	6,212.12	0.00	10,436.78	43,051.73	3,340.51	46,392.24	54,934.00
TOTAL TRAINING AND TECHNOLOGY TRANSFER	122,370.01	20,763.99	20,181.53	0.00	52,260.97	213,576.50	16,517.89	232,094.39	332,881.00

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
SPECIAL STUDIES									
WORLDWIDE									
MAIN SYS. DESIGN.MGMT. 3-04-061-84	43,205.40	5,853.59	21,300.45	130.50	24,115.02	99,604.96	7,460.58	107,065.54	221,424.00
SEL. OF IRRIG.TECH. 3-04-062-84	22,738.80	873.45	743.74	0.00	7,793.92	32,149.91	2,411.24	34,561.15	62,430.00
TOTAL WORLDWIDE	70,944.20	6,727.04	22,044.19	130.50	31,908.94	131,754.87	9,871.82	141,626.69	283,854.00
TOTAL SPECIAL STUDIES	70,944.20	6,727.04	22,044.19	130.50	31,908.94	131,754.87	9,871.82	141,626.69	283,854.00
TOTAL AS OF 12-31-84	500,367.38	195,424.23	306,917.80	10,693.54	320,867.01	1,334,269.96	105,952.46	1,440,222.42	3,300,324.00

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FISCAL YEAR 84	CSU CODE	& BENEFITS	& PER DIEM	DIRECT COSTS	EQUIPMENT	COSTS	SUBTOTAL	CID 6&A	TOTAL	BUDGET
DOMESTIC: ADMINISTRATION	0-02-996-84	97,800.64	7,196.69	20,834.63	3,359.00	61,199.53	189,590.49	12,378.16	201,968.65	201,270.00
TECHNICAL ASSISTANCE										
BURMA: WAKEMA PUMP SCHEME	1-02-036-84	2,914.48		0.96		1,154.56	4,070.00	288.63	4,358.63	4,759.00
INDIA: HILL IRRIG. II	1-02-074-84	12,346.77	7,649.09	286.68		8,808.65	29,091.19	2,007.97	31,099.16	61,218.00
INDONESIA: SMALL-SCALE D&M	1-02-011-84	10,397.18	22,019.20	4,944.11		18,952.59	56,313.08	3,698.69	60,011.77	54,468.00
KENYA: SECTOR STUDY	1-04-002-84						0.00	0.00	0.00	
SRI LANKA: FARMER ORGANIZ.	1-02-007-84	18,139.17	20,013.51	883.57		20,538.64	59,574.89	3,864.59	63,439.48	64,466.00
BANGLADESH: WATER SYS PROJ PAP COMPL	1-02-072-84	11,966.29		1,364.46	545.00	5,244.81	19,120.56	1,319.74	20,440.30	20,719.00
PERU: EXP SM & MED IRRIG SYS	1-02-035-84	1,260.09	1,239.02	1,582.73		1,904.21	5,986.05	404.10	6,390.15	
TRAINING & TECHNOLOGY TRANSFER										
DOMES: SMALL-SCALE WRKSHIP	2-14-054-84	9,496.61	716.00	10,905.45		9,547.16	30,665.22	2,090.69	32,755.91	47,163.00
DOMES: PARTIC WRKSHIP	2-14-066-84	4,030.30	40.00	7,571.57		6,795.55	18,437.42	1,152.55	19,589.97	36,153.00
DOMES: CURR RES SEMINAR	2-14-075-84	4,079.62		2.85		2,249.85	6,332.32	404.16	6,736.48	9,889.00
DOMES: PROF VISITORS	2-11-056-84		71.70	401.98		233.53	707.21	46.89	754.10	9,673.00
DOMES: SMALL-SCALE TASK FORCE	2-14-065-84	2,240.46	590.50	820.26		1,760.60	5,411.02	361.47	5,772.29	20,741.00
DOMES: MAIN SYS MANAGE TASK FORCE	2-14-065-84		609.00			417.78	1,026.78	60.29	1,087.07	7,557.00
INDONESIA: FAO/AID EXP CONSUL	2-14-067-84	1,811.42	6,169.31	27.33		5,301.95	13,310.01	792.80	14,102.81	9,228.00
BOLIVIA: TARIJA SHORT COURSES	2-01-095-84			65.52		44.95	110.47	6.49	116.96	64,995.00
SA WORKSHOP PLANNING	2-01-095-84						0.00	0.00	0.00	
CSU: SUMMER WRKSHIP		3,072.00				732.67	3,804.67	304.13	4,108.80	
SPECIAL STUDIES										
DOMES: SMALL-SCALE COMPL	3-04-069-84	31,105.03		296.53		11,417.15	42,818.71	3,108.75	45,927.46	23,404.00
DOMES: PARTIC COMPL		8,568.60		2,155.00		3,289.42	14,013.02	1,061.64	15,074.66	
DOMES: MANAGE INTENSITY	3-04-096-84	39,041.36	415.38	751.73		20,470.29	60,678.76	3,980.64	64,659.40	77,238.00
SRI LANKA: REHAB & PARTICI	3-04-097-84	9,216.07		2,894.16		4,718.22	17,528.45	1,268.21	18,796.66	26,492.00
NIGER: SMALL-SCALE IRRIG & WAT MANAGE	3-04-098-84	4,419.08		11.71		1,334.41	5,765.20	438.65	6,203.85	5,508.00
NIGER: TRAD&DEV SMALL-SCALE SYS		5,204.06	3,133.52	1,677.46		2,021.32	12,036.36	991.49	13,027.85	

TOTAL		277,809.23	69,862.92	56,678.69	3,904.00	188,137.84	596,392.60	40,030.73	636,423.41	744,961.00

			5,295.74	197.29		3,568.53		543.80	9,805.05	F/Y 84 ACTIVITIES RESOURCES IN

WATER MANAGEMENT SYNTHESIS II
 CONSORTIUM FOR INTERNATIONAL DEVELOPMENT
 FINANCIAL REPORT AS OF 12/31/84
 F/Y 84 ACTIVITIES

	<u>Salaries & Benefits</u>	<u>Travel & Per Diem</u>	<u>Consultant Fees</u>	<u>Other Direct Costs</u>	<u>Equipment</u>	<u>Indirect Costs</u>	<u>University Costs</u>	<u>CID G&A DBA</u>	<u>Total Activity</u>	<u>Budget</u>
<u>UNIVERSITY SUPPORT ACTIVITIES</u>										
CID Executive Office	\$	\$ 702.89	\$	\$29.13	\$	\$	\$ 732.02	\$ 72.47	\$ 804.49	\$0.00
TOTAL UNIVERSITY SUPPORT	<u>0.00</u>	<u>702.89</u>	<u>0.00</u>	<u>29.13</u>	<u>0.00</u>	<u>0.00</u>	<u>732.02</u>	<u>72.47</u>	<u>804.49</u>	<u>0.00</u>
<u>TECHNICAL ASSISTANCE</u>										
India										
Maha Irr. T&M Proj. 1-01-021-84		1,487.50					1,487.50	147.26	1,634.76	USU
Madhya Pr. Minor Irr. 1-01-025-84		3,616.50					3,616.50	358.03	3,974.53	USU
Mahar. Minor Irr. Proj. 1-02-018-84		21,466.59	23,329.65			3,308.61	48,104.85	4,735.07	52,839.92	USU
Hill Irr. Proj.--Phase II 1-02-074-84		3,301.31					3,301.31	326.83	3,628.14	CU
Short Course 1-02-100-84		7,161.21					7,161.21	708.96	7,870.17	USU
Total India	<u>0.00</u>	<u>37,033.11</u>	<u>23,329.65</u>			<u>3,308.61</u>	<u>63,671.37</u>	<u>6,276.15</u>	<u>69,947.52</u>	<u>0.00</u>
Peru										
Expan. of Irr. Syst. 1-02-035-84			8,148.00				8,148.00	806.65	8,954.65	USU
Total Peru	<u>0.00</u>	<u>0.00</u>	<u>8,148.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>8,148.00</u>	<u>806.65</u>	<u>8,954.65</u>	<u>0.00</u>
El Salvador										
Evaluation Team 1-02-107-84A			89,888.00				89,888.00	9,827.18	99,715.18	CSU
Total El Salvador	<u>0.00</u>	<u>0.00</u>	<u>89,888.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>89,888.00</u>	<u>9,827.18</u>	<u>99,715.18</u>	<u>0.00</u>
Pakistan										
Command Water Mgm't. 1-02-106-84		2,693.13					2,693.13	266.62	2,959.75	USU
Irrig. Long Term Policies 1-02-101-84		749.48					749.48	74.20	823.68	USU
Total Pakistan	<u>\$0.00</u>	<u>\$ 3,442.61</u>	<u>\$ 0.00</u>	<u>\$ 0.00</u>	<u>\$0.00</u>	<u>\$ 0.00</u>	<u>\$ 3,442.61</u>	<u>\$ 340.82</u>	<u>\$ 3,783.43</u>	<u>\$0.00</u>

WATER MANAGEMENT SYNTHESIS II
 CONSORTIUM FOR INTERNATIONAL DEVELOPMENT
 FINANCIAL REPORT AS OF 12/31/84
 F/Y 84 ACTIVITIES

	<u>Salaries & Benefits</u>	<u>Travel & Per Diem</u>	<u>Consultant Fees</u>	<u>Other Direct Costs</u>	<u>Equip.</u>	<u>Indirect Costs</u>	<u>University Costs</u>	<u>CID G&A DBA</u>	<u>Total Activity</u>	<u>Budget</u>
<u>TECHNICAL ASSISTANCE, cont.</u>										
Jordan										
Irrigation Sector Survey 1-04-013-84	\$	\$	\$ 7,500.00	\$	\$	\$	\$ 7,500.00	\$ 742.50	\$ 8,242.50	USU
Total Jordan	0.00	0.00	7,500.00	0.00	0.00	0.00	7,500.00	742.50	8,242.50	0.00
TOTAL TECHNICAL ASSISTANCE	0.00	40,475.72	128,865.65	0.00	0.00	3,308.61	172,649.98	17,993.30	190,643.28	0.00
<u>TRAINING & TECHNICAL TRANSFER</u>										
India										
DA Workshop Madya Pradesh 2-02-031-84		10,036.76					10,036.76	1,003.54	11,040.30	CSU
DA Workshop WID 2-02-090-84		2,005.82					2,005.82	198.58	2,204.40	21,980.00
Senior Officers Workshop 2-04-053-84		9,415.15	5,172.18				14,587.33	1,444.14	16,031.47	USU
Total India	0.00	21,457.73	5,172.18	0.00	0.00	0.00	26,629.91	2,646.26	29,276.17	21,980.00
Worldwide										
Increasing W.M. Capabil. 2-11-081-84		2,011.38					2,011.38	199.13	2,210.51	CSU
Total Worldwide	0.00	2,011.38	0.00	0.00	0.00	0.00	2,011.38	199.13	2,210.51	0.00
TOTAL TRAINING & TECH. TRANS.	0.00	23,469.11	5,172.18	0.00	0.00	0.00	28,641.29	2,845.39	31,486.68	21,980.00
<u>SPECIAL STUDIES</u>										
Worldwide										
Main Sys. Design, Mgm't Reh 3-04-061-84				1,043.25			1,043.25	103.28	1,146.53	USU
Total Worldwide	0.00	0.00	0.00	1,043.25	0.00	0.00	1,043.25	103.28	1,146.53	0.00
TOTAL SPECIAL STUDIES	0.00	0.00	0.00	1,043.25	0.00	0.00	1,043.25	103.28	1,146.53	0.00
TOTAL AS OF 12/31/84	\$0.00	\$64,647.72	\$134,037.83	\$1,072.38	\$0.00	\$3,308.61	\$203,066.54	\$21,014.44	\$224,080.98	21,980.00

Consortium for International Development

Water Management Synthesis II

Summary Financial Report with Budget Comparison

For the Period October 1, 1984 through December 31, 1984

Fiscal Year 1985 Activities

	Total FY 1985 Work Plan Budget	Current Qtr. Period Expenditures	Cumulative Expenditures Inception to Date	Unexpended Balance	Percent of Budget Unexpended
<u>DIRECT COSTS:</u>					
Salaries & Benefits	1,859,744	113,326	113,326	1,746,418	94%
Travel & Per Diem	816,234	8,528	8,528	807,706	99%
Other Direct Costs	430,701	13,821	13,821	416,880	97%
Equipment	6,000			6,000	100%
Total Direct Costs	3,112,679	135,676	135,676	2,977,003	96%
<u>INDIRECT COSTS:</u>					
University	973,370	51,034	51,034	922,336	95%
CID G&A & DBA	323,529	13,937	13,937	309,592	96%
Total Indirect Costs	1,296,899	64,972	64,972	1,231,927	95%
TOTAL PROJECT COSTS	4,415,578	200,648	200,648	4,214,930	95%

Consortium for International Development
 Water Management Synthesis II
 Project Expenditure by University
 Cumulative to Date As Of December 31, 1984
 Fiscal Year 1985 Activities

	Colorado State University	Utah State University	Cornell University	Consortium for International Development	Total Costs
<u>DIRECT COSTS:</u>					
Salaries & Benefits	70,698	16,105	26,523		113,326
Travel & Per Diem	3,480	4,157	841	49	8,528
Other Direct Costs	7,057	3,406	3,323	33	13,821
Equipment					
Total Direct Costs	81,236	23,669	30,688	82	135,676
<u>INDIRECT COSTS:</u>					
University	27,832	7,574	15,627		51,034
CID G&A & DBA	8,511	2,380	3,038	8	13,937
Total Indirect Costs	36,344	9,954	18,665	8	64,972
TOTAL PROJECT COSTS	117,580	33,623	49,353	90	200,648

FISCAL YEAR 1985 ACTIVITIES
SUMMARY BY ACTIVITY
CUMULATIVE AS OF DECEMBER 31, 1984

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
ADMINISTRATION					
Worldwide					
CSU Administration	0-02-998-85	CSU	231,641	65,070	166,570
EPD Administration	0-01-999-85A	EPD	191,810	9C	191,719
EPD Administration	0-01-999-85B	CSU		EPD 14,917	14,917-
CU Administration	0-02-996-85	CU	206,932	38,394	168,537
USU Administration	0-02-997-85	USU	233,126	25,165	207,960
TOTAL ADMINISTRATION			<u>863,509</u>	<u>143,638</u>	<u>719,870</u>
TECHNICAL ASSISTANCE					
El Salvador					
PID Preparation	1-02-059-85	CSU	22,500	1,503	20,996
Honduras					
Irrig. Devel. Project	1-02-060-85	USU	12,309	960	11,348
India					
Hydraulic Conductivity	1-02-024-85	USU	31,750		31,750
Reservoir Operation	1-02-025-85	USU	36,990		36,990
Univ. Curricula	1-02-013-85	USU	26,472		26,472
Priority Research	1-02-014-85	CSU	113,877		113,877
Rapid Appraisal	1-02-016-85	USU	75,853		75,853
Indonesia					
SSI Workshop & Tech Asst	1-02-009-85A	CU	200,658		200,658
SSI Workshop & Tech Asst	1-02-009-85B	CSU		CU 12,449	12,449-
SSI Workshop & Tech Asst	1-02-009-85C	USU		CU 6,053	6,053-
Jamaica					
Planning Activities	1-02-007-85	USU	11,970		11,970
Systems Study	1-02-008-85	USU	24,822		24,822
Jordan					
Advisory Services	1-02-028-85	USU	10,338		10,338
Mauritania					
Peace Corps Assistance	1-02-061-85	CU	4,930		4,930
Morocco					
PID Development	1-02-002-85	USU	47,629		47,629
Sri Lanka					
Central Support	1-02-003-85	CSU	73,695		73,695
Socioeconomic Studies	1-02-004-85	CU	82,672		82,672
Model Calibration	1-02-005-85	USU	37,600		37,600
Swaziland					
Irrigation Assistance	1-02-029-85	USU	12,207		12,207
Worldwide					
Meeting Recurrent Costs	1-02-062-85	CU	51,345		51,345
TOTAL TECHNICAL ASSISTANCE			<u>877,617</u>	<u>20,966</u>	<u>856,650</u>

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BUDGET BALANCE
TRAINING AND TECHNOLOGY TRANSFER					
Bolivia					
On-Farm Water Management	2-01-011-85	USU	81,368		81,368
Course SSI - Design	2-14-010-85	USU	41,333	429	40,903
Dominican Republic					
On-Farm Water Management	2-14-030-85	USU	9,909		9,909
India					
Dem/Workshop of Computer	2-14-040-85	USU	57,471		57,471
Technology Transfer	2-06-022-85	CSU	164,971		164,971
Water Balance	2-14-023-85	USU	40,333		40,333
Development of Handbooks	2-13-027-85	CSU	79,956	11,689	68,266
Innovative Teaching	2-03-012-85	USU	138,090		138,090
Main Systems Training	2-14-015-85	USU	65,372		65,372
Farmer Organization	2-14-017-85	CU	81,141		81,141
Training of Trainers	2-14-019-85	CSU	37,594		37,594
Training Materials	2-13-020-85	CSU	435,210		435,210
Nepal					
DA of Irrg. Sys.	2-02-031-85	CSU	126,479	11,950	114,528
Pakistan					
Management Training	2-04-065-85	CSU	99,881		99,881
Sri Lanka					
Seminar Irrg Sys Reh 1	2-05-033-85	CSU	74,568		74,568
DA Workshop	2-02-006-85	CSU	64,620		64,620
Worldwide					
Lessons Learned ISM	2-14-039-85	USU	103,209		103,209
French Language Training	2-11-041-85	USU	6,642		6,642
Rehabilitation, Game	2-13-048-85	CU	33,444		33,444
Workshop Lessons Learned	2-14-049-85	CU	41,790		41,790
Joint Seminar Current	2-14-050-85	CU	94,372	345	94,026
Micro Computer Workshop	2-14-032-85	CSU	59,972		59,972
TOTAL TRAINING AND TECHNOLOGY TRANSFER			1,937,725	24,414	1,913,310

ACTIVITY	CODE	UNIV.	BUDGET	EXPENSES	BALANCE
SPECIAL STUDIES					
India					
Main System Case Study	3-04-043D85	USU	31,928		31,928
Morocco					
Case Studies	3-04-043C85	USU	29,433		29,433
Niger					
Trad. & Dev. SSI Study	3-04-052-85	CU	42,484	2,226	40,257
Sri Lanka					
Interfacing OFWM - I	3-04-036A85	CSU	86,390		86,390
Interfacing OFWM - II	3-04-036B85	CSU	130,907		130,907
Landsat 85-Rapid Recon.	3-04-036-85	CSU	34,442		34,442
Thailand					
Case Study	3-04-043B85	USU	44,067		44,067
Worldwid					
Rural Employment	3-04-055-85	CU	16,150		16,150
Management Intensities	3-04-056-85	CU	69,615	8,385	61,229
Rapid Irr Proj Remote Sen	3-04-042-85	USU	73,710		73,710
ISM - Development	3-04-043A85	USU	37,623	1,014	36,608
ISM - Workshop	3-04-043E85	USU	27,848		27,848
Phase I - Comp. Analysis	3-04-053-85	CU	15,031	1	15,029
Phase II - Comp Analysis	3-04-054-85	CU	97,099		97,099
TOTAL SPECIAL STUDIES			<u>736,727</u>	<u>11,628</u>	<u>725,098</u>
TOTAL FY 85			<u>4,415,578</u> =====	<u>200,648</u> =====	<u>4,214,929</u> =====

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
UNIVERSITY SUPPORT ACTIVITIES CSU Administration 0-01-998-85	38,175.83	582.15	5,731.19		15,931.47	60,420.64	4,649.97	65,070.61	231,641.00
TOTAL UNIV SUPPORT	<u>38,175.83</u> *****	<u>582.15</u> *****	<u>5,731.19</u> *****	<u>0.00</u> *****	<u>15,931.47</u> *****	<u>60,420.64</u> *****	<u>4,649.97</u> *****	<u>65,070.61</u> *****	<u>231,641.00</u> *****
TECHNICAL ASSISTANCE El Salvador El Salvador PID 1-02-059-85	887.19	90.00	53.00		370.87	1,401.06	101.99	1,503.05	22,500.00
	0.00					0.00		0.00	
Total El Salvador	<u>887.19</u> =====	<u>90.00</u> =====	<u>53.00</u> =====	<u>0.00</u> =====	<u>370.87</u> =====	<u>1,401.06</u> =====	<u>101.99</u> =====	<u>1,503.05</u> =====	<u>22,500.00</u> =====
India Priority Research 1-02-014-85 Rajasthan MIP 1-02-026-85	0.00					0.00		0.00	113,877.00
	0.00					0.00		0.00	
	0.00					0.00		0.00	
Total India	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>113,877.00</u> =====
Indonesia Assessment Team 1-02-009-85	7,420.99	1,884.49	15.03		2,050.52	11,371.03	1,078.36	12,449.39	CJ
Total Indonesia	<u>7,420.99</u> =====	<u>1,884.49</u> =====	<u>15.03</u> =====	<u>0.00</u> =====	<u>2,050.52</u> =====	<u>11,371.03</u> =====	<u>1,078.36</u> =====	<u>12,449.39</u> =====	<u>0.00</u> =====
Sri Lanka Central Support 1-02-003-85	0.00					0.00		0.00	73,695.00
	0.00					0.00		0.00	
Total Sri Lanka	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>73,695.00</u> =====
Worldwide	0.00					0.00		0.00	
Total Worldwide	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====	<u>0.00</u> =====
TOTAL TECH. ASSIST.	<u>8,308.18</u> *****	<u>1,974.49</u> *****	<u>68.03</u> *****	<u>0.00</u> *****	<u>2,421.39</u> *****	<u>12,772.09</u> *****	<u>1,180.35</u> *****	<u>13,952.44</u> *****	<u>210,072.00</u> *****

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
TRAINING & TECH TRAN									
India									
Technology Trans.									
2-06-022-85	0.00					0.00		0.00	164,971.00
Training Materials									
2-13-020-85	0.00							0.00	435,210.00
Devel. Handbooks									
2-13-027-85	7,088.31	923.57			2,884.28	10,896.16	793.18	11,689.34	79,956.00
Training of Trnrs									
2-14-019-85	0.00					0.00		0.00	37,594.00
Total India	<u>7,088.31</u>	<u>923.57</u>	<u>0.00</u>	<u>0.00</u>	<u>2,884.28</u>	<u>10,896.16</u>	<u>793.18</u>	<u>11,689.34</u>	<u>717,731.00</u>
Nepal									
DA of Irrig. Syst.									
2-02-031-85	6,985.95		1,220.73		2,931.74	11,138.42	812.47	11,950.89	126,479.00
Total Nepal	<u>6,985.95</u>	<u>0.00</u>	<u>1,220.73</u>	<u>0.00</u>	<u>2,931.74</u>	<u>11,138.42</u>	<u>812.47</u>	<u>11,950.89</u>	<u>126,479.00</u>
Pakistan									
Mgmt. Training									
2-04-065-85									99,881.00
Total Pakistan	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>99,881.00</u>
Sri Lanka									
DA Workshop									
2-02-006-85	0.00					0.00		0.00	64,620.00
Sem. Irr. Rehab.#1									
2-05-033-85	0.00					0.00		0.00	74,568.00
Sem. Irr. Rehab.#2									
2-05-034-85	0.00					0.00		0.00	
	0.00					0.00		0.00	
Total Sri Lanka	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>139,188.00</u>
Worldwide									
Micro Comp. WS									
2-14-032-85	0.00					0.00		0.00	59,972.00
	0.00					0.00		0.00	
	0.00					0.00		0.00	
Total Worldwide	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>59,972.00</u>
TOTAL TRAINING & TECHNOLOGY TRANSFER	<u>14,074.26</u>	<u>923.57</u>	<u>1,220.73</u>	<u>0.00</u>	<u>5,816.02</u>	<u>22,034.58</u>	<u>1,605.65</u>	<u>23,640.23</u>	<u>1,143,251.00</u>

DESCRIPTION	SALARIES & BENEFITS	TRAVEL PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIV COSTS	CID G&A &DBA	ACTIVITY TOTAL	BUDGET
SPECIAL STUDIES									
Sri Lanka									
Int. On-farm WM I 3-04-036A85	0.00					0.00		0.00	86,390.00
Int. On-farm WM II 3-04-036B85	0.00					0.00		0.00	130,907.00
Landsat 85 3-04-038-85	0.00					0.00		0.00	34,442.00
Total Sri Lanka	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	251,739.00
Worldwide									
On Campus Support 3-04-037-85	0.00					0.00		0.00	
Projected Expend. 3-04-058-85	0.00					0.00		0.00	
	0.00					0.00		0.00	
	0.00					0.00		0.00	
Total Worldwide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL SPECIAL STUDIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	251,739.00
OVERALL ADMINISTRATION									
EPD Administration 0-01-999-85	10,140.11		37.79		3,664.04	13,841.94	1,075.46	14,917.40	EPD
TOTAL OVERALL ADM.	10,140.11	0.00	37.79	0.00	3,664.04	13,841.94	1,075.46	14,917.40	0.00
TOTAL AS OF 12/31/84	70,698.38	3,480.21	7,057.74	0.00	27,832.92	109,069.25	8,511.43	117,580.68	1,836,703.00

DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
UNIVERSITY SUPPORT									
USU ADMINISTRATION 0-02-997-85	14,172.59	275.63	3,286.48	0.00	5,675.10	23,409.80	1,755.74	25,165.54	233,126.00
TECHNICAL ASSISTANCE									
INDIA									
WATLI BALANCE 1-02-023-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40,333.00
HYDRAUL. CONDUCT. 1-02-024-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31,750.00
RESERVOIR OPER. 1-02-025-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36,990.00
UNIV. CURRICULA. 1-02-013-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26,472.00
TOTAL INDIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	135,545.00
JAMAICA									
PLAN. ACTIVIT. 1-02-007-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,970.00
SYS. STUDY 1-02-008-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24,822.00
TOTAL JAMAICA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36,792.00
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									
FID DEV. 1-02-002-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47,627.00
SRI LANKA									
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									
IRR. ASSIST. 1-02-029-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,207.00

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & D&A	ACTIVITY TOTAL	BUDGET
INDONESIA C.U.-ANDY KELLER 1-02-009-85	1,640.00	2,555.00	44.97	0.00	1,356.79	5,596.76	456.66	6,053.42	CU
HONDURAS STRINGHAM 1-02-060-85	0.00	677.07	0.00	0.00	216.66	893.73	67.03	960.76	12,309.00
TOTAL TECH. ASSISTANCE	1,640.00	3,232.07	44.97	0.00	1,573.45	6,490.49	523.69	7,014.18	292,420.00
TRAINING & TECHNOLOGY TRANSFER									
BOLIVIA SM/SC. COURSE 2-14-010-85	292.60	0.00	10.12	0.00	96.87	399.59	29.97	429.56	41,333.00
ON-FARM WATER COURSE 2-01-011-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81,368.00
TOTAL BOLIVIA	292.60	0.00	10.12	0.00	96.87	399.59	29.97	429.56	122,701.00
DOMINICAN REPUBLIC 2-14-030-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,909.00
INDIA 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
INNOVATIVE TEACHING 2-03-012-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	138,092.00
MAIN SYS. TRNG. 2-14-015-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65,372.00
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
TOTAL INDIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	336,786.00

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DESCRIPTION	SALARIES & BENEFITS	TRAVEL & PER DIEM	OTHER DIRECT	EQUIPMENT	INDIRECT COSTS	UNIVERSITY COSTS	CID G&A & DBA	ACTIVITY TOTAL	BUDGET
WORLDWIDE LESSONS LEARNED									
2-14-039-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103,209.00
FRENCH LANG. TRNG.									
2-11-041-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6,642.00
CURRENT RESEARCH IRR									
2-14-050-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL WORLDWIDE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	109,851.00
TOTAL TRAINING AND TECHNOLOGY TRANSFER	292.60	0.00	10.12	0.00	96.87	399.59	29.97	429.56	579,247.00
SPECIAL STUDIES									
REMOTE SENSING SYS.									
3-04-042-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73,710.00
MAIN SYS.-ISM DEV.									
3-04-043A85	0.00	650.00	64.87	0.00	228.76	943.63	70.77	1,014.40	37,623.00
MAIN SYS.-THAILAND									
3-04-043B85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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 CASE STUDY									
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	0.00	650.00	64.87	0.00	228.76	943.63	70.77	1,014.40	244,609.00
TOTAL SPECIAL STUDIES	0.00	650.00	64.87	0.00	228.76	943.63	70.77	1,014.40	244,609.00
TOTAL AS OF 12/31/84	16,105.19	4,157.70	3,406.44	0.00	7,574.19	31,243.52	2,380.16	33,623.58	1,349,402.00

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FISCAL YEAR 85		CSU CODE	& BENEFITS	& PER DIEM	DIRECT COSTS	EQUIPMENT	COSTS	SUBTOTAL	CID G&A	TOTAL	BUDGET
DOMESTIC: ADMINISTRATION			19,940.55	841.49	2,502.36	0.00	12,804.65	36,089.05	2,305.16	38,394.21	
TECHNICAL ASSISTANCE											
PERU: MERIS EVAL			0.00	2,503.34	197.29	0.00	1,852.63	4,553.26	267.36	4,820.62 *	
INDONESIA: SMALL-SCALE IRRIG. WRKSH. P.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
INDIA: IRRIG. SECTOR EVAL.			0.00	2,725.70	0.00	0.00	1,869.83	4,595.53	269.84	4,865.37 *	
SRI LANKA: SOCIOECON. STUDIES-REHAB.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TRAINING & TECHNOLOGY TRANSFER											
INDIA: FARMER ORGAN. WRKSH. P.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: REHAB. GAME SIMUL.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: LESSONS LEARNED WRKSH. P.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: SMALL-SCALE TASK FORCE			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: JOINT CURRENT RES. SEM			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: PROFESSIONAL VISITORS			0.00	0.00	193.32	0.00	132.62	325.94	19.14	345.08	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPECIAL STUDIES											
NIGER: TRAD. & MOD. SMALL-SCALE IRRIG.			1,321.13	0.00	421.97	0.00	311.22	2,054.32	172.57	2,226.89	
WORLDWIDE: COMP. ANAL. INDIRECT INVEST.			0.00	0.00	1.09	0.00	0.75	1.84	0.11	1.95	
WORLDWIDE: RURAL EMPLOY. & IRRIG.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WORLDWIDE: MANAGEMENT INTENSITIES			5,261.70	0.00	204.58	0.00	2,377.87	7,644.15	541.16	8,385.31	
UTAH ACTIVITY:											
INDIA: IRRIG. SEC. EVAL. & STRAT REV.			0.00	66.70	0.00	0.00	45.76	112.46	6.60	119.06 *	
TOTAL			26,523.30	6,137.23	3,520.61	0.00	19,395.33	55,576.55	3,581.94	59,158.49	0.00
				< 5,295.74 >	< 197.29 >		< 3768.22 >		< 54380 >	< 9805.05 >	11-84 AL7107103

WATER MANAGEMENT SYNTHESIS II
 CONSORTIUM FOR INTERNATIONAL DEVELOPMENT
 FINANCIAL REPORT AS OF 12/31/84
 F/Y 85 ACTIVITIES

<u>UNIVERSITY SUPPORT ACTIVITIES</u>	<u>Salaries & Benefits</u>	<u>Travel & Per Diem</u>	<u>Consultant Fees</u>	<u>Other Direct Costs</u>	<u>Equipment</u>	<u>Indirect Costs</u>	<u>University Costs</u>	<u>CID G&A DBA</u>	<u>Total Activity</u>	<u>Budget</u>
CID Executive Office	\$	\$ 49.00	\$	\$ 33.70	\$	\$	\$ 82.70	\$ 8.19	\$ 90.89	\$ 0.00
TOTAL UNIVERSITY SUPPORT	<u>\$0.00</u>	<u>\$ 49.00</u>	<u>\$ 0.00</u>	<u>\$ 33.70</u>	<u>\$0.00</u>	<u>\$ 0.00</u>	<u>\$ 82.70</u>	<u>\$ 8.19</u>	<u>\$ 90.89</u>	<u>\$ 0.00</u>