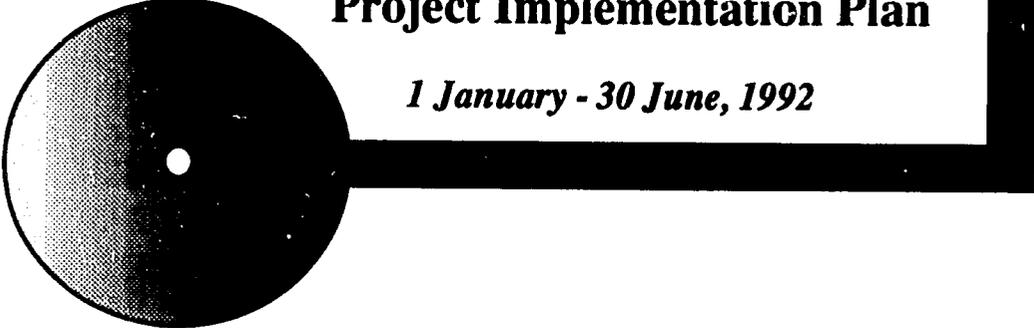


PD-ARZ-955
80010



**Semi-annual Report and
Project Implementation Plan**

1 January - 30 June, 1992

**UNITED STATES AGENCY
FOR
INTERNATIONAL DEVELOPMENT**

July 31, 1992

EDC
Education Development Center, Inc.
55 Chapel Street
Newton, MA 02160 USA

MCBIVD•IRRIGATION•MANAGEMENT•AND•TRAINING•PROJECT
Project # 386-0484 • Contract # 386-0484-C-00-9131-00

CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. SUMMARY OF SIGNIFICANT EVENTS	2
3. EDC ACTIVITIES AND RESULTS	3
3.1 Planning and Administration	
3.2 Training and Technology Transfer	
3.3 Videodisc Production	
3.4 Equipment Transfer	
3.5 IVD Evaluation	
4. CURRENT ISSUES IN PROJECT IMPLEMENTATION	12
4.1 Planning and Administration	
4.2 Training and Technology Transfer	
4.3 Videodisc Production	
4.4 Equipment Transfer	
4.5 IVD Evaluation	
5. FINANCES	18
ANNEXES	
Annex A	Consultants' and Staff Assignments and Duration
Annex B	Objectives for July 1992
Annex C	Progress Reports
Annex D	June 11, 1992 Management Committee Meeting Minutes
Annex E	Udaipur Equipment Sold
Annex F	Credits Format

Section 1

INTRODUCTION

This report describes the activities of the Education Development Center (EDC) during the semi-annual period of January - June 1992, of the Microcomputer-based Interactive Videodisc Training (MCBIVD) Project. Under this project, EDC is providing training and technical assistance in the production of interactive videodiscs for irrigation management training.

Section 2 of the report provides a summary of significant events for the project during this semi-annual period.

Section 3 describes EDC activities and results during the six month period. These activities are organized under five topics:

- Planning and Administration
- Training and Technology Transfer
- Videodisc Production
- Equipment Transfer
- IVD Evaluation

Section 4 discusses current issues and recommends actions to most effectively and efficiently achieve project goals.

Section 5 presents details of project expenditures during this semi-annual period, as well as cumulative expenditures.

The report also includes 5 Annexes:

- A Consultants' and Staff Assignments and Duration
- B Objectives for July 1992
- C Progress Reports
- D June 11, 1992 Management Committee Meeting Minutes
- E Udaipur Equipment Sold
- F Credits Format

Section 2

SUMMARY OF SIGNIFICANT EVENTS

This section presents a summary of the significant events occurring in the project during the semi-annual period of January - June 1992.

1. In March, the Directorate General approved EDC's NMIC. In May, EDC received the final signature from the Ministry of Water Resources (MWR) and the proper signatures from WALMI, Aurangabad, allowing import of the IVD equipment.
2. A meeting of all key project staff, including Ashish Basu of NIIT, was held at EDC, USA on January 13, 1992 to discuss the status of the project and plan for the completion of the project.
3. In January, Ed Robbins conducted a two-day workshop on IVD design, which was held in Aurangabad for the WALMI, Aurangabad and RAJAU Core Teams.
4. In February, disc pressing for Modules 2 and 3 was completed.
5. In February, Dr. Brodman and Tom Reeves of the University of Georgia finalized all IVD evaluation tests and questionnaires.
6. In April, Constant Voltage Transformers (CVT's) were installed at all sites.
7. Graphics for Modules 2 and 3 were nearly complete by the end of July
8. EDC hired a new budget and subcontract administrator.
9. USAID approved Dr. John Replogle as a Subject Matter Expert for Module 5.
10. In June, the Management Committee Meeting took place in New Delhi.
11. Between January and May, the evaluation baseline data was collected at each site.
12. The IVD equipment maintenance and usage manuals were completed.
13. Programming and alpha testing of Modules 1 and 3 were completed in May.
14. Testing and packaging of the IVD equipment was finalized in May.
15. Dr. Brodman and John Correa, with input from Matrix and P.N. Writer, planned and executed the shipment of IVD equipment to each site in India. The shipment reached India by June.
16. In April, Steve Lambert was identified as programmer for Module 5.
17. In May, Ed Robbins conducted a production workshop in Aurangabad.

Section 3

EDC ACTIVITIES AND RESULTS

EDC objectives for this semi-annual period were developed in discussions with the United States Agency for International Development (USAID). This section describes EDC activities and results related to these objectives.

3.1 Planning and Administration

a. AID/Washington Evaluation Team

In February, an Evaluation Team from AID/Washington, DC, traveled to India to review the progress of the WRM & T Project. Ed Robbins of EDC and Ashish Basu of NIIT conducted a presentation of the project and demonstrated Module 1 for the team.

b. EDC and NIIT Progress Meeting

In March, Dr. Brodman, John Correa and Eric Schnur met with Ashish Basu of NIIT in March to discuss programming, equipment procurement, site preparation, system training and equipment installation issues. (See Section 4 for details.)

c. Meeting with Jim Robinson

Dr. Brodman met with Jim Robinson in March to apprise him in detail of the latest developments of the project. In particular, the meeting focused on the EDC and NIIT progress meeting, content development of Module 5, and graphics conventions across all modules.

d. Management Committee Meeting

The agenda for the Management Committee Meeting was completed in May and the meeting held in June. Topics included a review of project progress on videodiscs, disc evaluation, planning for the completion of the project and future needs. (See Attachment X, Management Committee Meeting Minutes.)

e. In May, Dr. Brodman requested a complete inventory of all equipment and other items bought for the project in the U.S. and India since the project began.

f. Travel

Dr. Brodman left for India on May 23. Andy Manzardo arrived in India on May 24. Travel plans were also made for Jane Sallis, John Correa and John Replege in the month of May.

g. John Correa's responsibilities

Ed Cooney submitted a task order to John Correa in order to determine supportable dates for project deliverables. Another intent was to reflect Correa's increased level of effort. The scope of Correa's work includes: prepare equipment for shipping, coordinate site preparation activities with NIIT; travel to India for three to six weeks to supervise on-site installation, training, and testing; meet with Ed Robbins to discuss specifications for Module 4; supervise the drafting of the manuals; manage the debugging of Modules 1 and 4 and install the debugged versions at each site; establish a timeline for completion of programming tasks; and work with Ed Robbins to develop program specifications for Module 4.

h. Project deadline

September 30th was given as the date for project completion.

i. Staffing Changes

Ronald Fried was approved by USAID as a computer graphics consultants. Mr. Fried worked with Eric Schnur in creating graphics in Hypertext, a special graphics package which highlights important text, for the Module 3 tutorial.

Maria Manhattan was hired in March as a computer graphics artist for Module 3. Ms. Manhattan, hired by Jim Robinson, will now provide graphics for Module 3.

In March, EDC hired Edward Cooney as the full-time budget and subcontract administrator to replace Dianne Proia. Mr. Cooney has over 15 years' experience in extensive hands-on, governmental and commercial contracts/subcontracts experience. In addition to general budgetary responsibility at both the departmental and divisional level, he has had budgetary responsibility for over 30 project of all types, ranging up to multi-year, multi-million dollar projects.

Also in March, USAID approved Dr. Shiv Prasher as the SME for Module 3. Dr. Prasher has been an associate professor at McGill University in Montreal for the past four years, and was an assistant professor at McGill for five years. Dr. Prasher will provide drainage expertise for Eric Schnur

in developing and reviewing the Module 3 content.

In April, Dr. John Replogle was approved as a part-time Subject Matter Expert for Module 5. Dr. Replogle has worked for numerous organizations in irrigation and flow measurement and is currently a Research Hydraulics Engineer and Leader in Irrigation Hydraulics and Water Quality Research at the U.S. Water Conservation Lab in Arizona.

Also in April, IVD producer Jane Sallis, a previously-approved consultant based in Seattle, Washington, joined the EDC team in the development of Module 5.

In May, Antonia Gabor was submitted and approved as short-term graphics artist for Modules 2 and 3. Ms. Gabor had worked previously as a consultant in graphic arts production management and received her Master of Arts from the Teachers College of Columbia University.

3.2 Training and Technology Transfer

a. Core Team Production Workshops

In January, Ed Robbins conducted a Core Team workshop on IVD design in Aurangabad. The workshop was attended by the WALMI, Aurangabad and RAU Core Teams. The workshop was conducted as part of the new approach to training developed by Dr. Brodman. At the workshop, Mr. Robbins provided detailed guidance specific to the teams' needs, regarding production of their designs.

In May, the Core Teams participated in a production workshop for Module 6, to be completely developed by the Core Teams.

Core Team Modules

In February, both the WALMI, Aurangabad and RAJAU Core Teams began drafting macro designs for their module. Each team has submitted a macro design to Dr. Brodman.

Udaipur sent a copy of a detailed design to Dr. Brodman in which efforts to incorporate her suggestions were made.

From January through June, Dr. Brodman was in ongoing communication with both teams. The program for both Core Teams progressed very well.

b. Equipment testing

By the end of April, John Correa had completed the testing of the equipment in the warehouse and packed them for shipment.

c. Pre-approval of equipment

In May, WALMI, Aurangabad's application letter to Mr. Rajagopalan for the NMIC was delivered to the Ministry of Water Resources. Chetan Sharma delivered the NMIC papers to PN Writer and they began the pre-approval process.

As soon as that process is complete, the equipment will be shipped. Based on the agent's experience, it was believed it would take two to three weeks for pre-approval, and then approximately two weeks to process in Delhi and ship to the sites. When the agent finalizes the packing lists, they will send a list of the boxes to designated individuals at each site and a copy to WALMI, Aurangabad. As of June 30, the equipment still had not been released to the sites, but we are optimistic that it will happen in July.

d. Liquidation of equipment

With USAID approval, Lovish Chaplot sold the equipment that was in Udaipur storage. (See attachment XX.)

3.3 Videodisc Production

a. Module 1

Module 1 is completed and has been alpha and beta tested. John Correa will get the final codes from Eric Schnur to ensure there are adequate backups in the U.S. and that they are archived. John will be bringing the videodisc to India to install on the systems.

b. Module 2

Mastering and replication of Module 2 was completed in February by Philips and Du Pont Optical Company (PDO).

Jim Robinson sent the Module 2, Section 2 update material to Marvin Jensen of Colorado State University for final review.

In May, all necessary changes to Module 2 were made, testing was completed, and software was sent from NIIT to EDC.

c. Module 3

Graphics design for Module 3 began in February. Frank Cordero was hired by Jim Robinson to design graphics common to both modules. Eric Schnur identified Ronald Fried as the graphic artist to prepare the Hypertext segment of the Module 3 tutorial.

Bhaskar Chavali was in constant communication with Eric Schnur concerning the overall programming of Module 3. Eric sent the programming specifications, and by April Bhaskar had completed a large portion of the programming.

NIIT assured EDC that there is someone at NIIT who is available for testing interpreted code for the Hypertext tutorial. Eric Schnur then sent to NIIT, in late April, the programming specs for these codes. NIIT will complete this stage of software testing by May.

Module 3 was completed and alpha tested by the beginning of May. NIIT sent the software to Eric Schnur. John Correa received a version of it to install on the systems in India. He reviewed with Eric Schnur the procedure for archiving and backing up.

d. Module 4

The scripting and micro design for Module 4 proceeded on schedule. Andy Manzardo worked in Delhi with Ed Robbins for one week in February to review the module's simulation and to update the text and content of Module 4. A draft of the meeting simulation dialogue was sent to Jim Robinson and Nepali consultants for review.

After the final review of the module's design, production planning began.

Ed Robbins submitted to Dr. Brodman and Andy Manzardo, a SME, a detailed design document for Module 4. Both Drs. Brodman and Manzardo responded with comments regarding format style, word choice and overall conventions.

In late March 1992, Andy Manzardo arrived in Delhi to work with Ed Robbins further on the design of Module 4.

Ed Robbins and Jim Robinson chose a screen layout and submitted

complete, screen-by-screen design specifications to John Correa in April.

e. Module 5

In February, Dr. Brodman spoke with Dr. John Replogle, a SME from Arizona, to identify potential topics of Module 5, "Water Flow Measurement." In early March 1992, Parimala Inamdar, Ed Robbins' assistant, met with Bill Bell, a colleague of Dr. Replogle's, and M.D. Gadre, another SME, to determine if "Water Flow Measurement" was an appropriate topic for Module 5. Specifically, the question of focusing on various flumes was raised, and the SMEs suggested that the modified Broad Crested Weir (BCW) was the most appropriate on which to focus Module 5 since they are simple and inexpensive to construct. Focusing on modified BCWs would also give EDC the opportunity to introduce a new approach for BCWs.

In March 1992, Dr. Brodman met with Burt Clemens, another colleague of Dr. Replogle's, who supplied a great deal of information regarding modified BCWs. Based on this information, Dr. Brodman submitted to Ed Robbins and Jim Robinson a high-level macro design of Module 5.

Ms. Inamdar then, on various occasions in India, met with Dr. Replogle, P. Sen of NIIT, Mr. Gadre, and Bill Bell to develop content for Module 5.

In April, preparations were made for filming. Jane Sallis and John Replogle determined the types of sites needed for the shooting for Module 5.

Jane Sallis prepared the design and script for Module 5. After Dr. Replogle and Ms. Sallis decided on the requirements, Bill Bell went out to review sites in India. Dr. Replogle joined the crew for the shoot and followed up anything that wasn't shot by the time of Mr. Bell's departure. Dr. Brodman recommended the crew take multiple shots at each location to ensure quality and to reduce risks.

Ed Robbins identified a location scout for Module 5. It was decided that someone from NIIT would do the scouting and would accompany Mr. Bell to identify sites that fit the specifications, taking videos and photographs for location purposes.

f. Miscellaneous

Module Credit Format

In February, EDC asked USAID for its approval of EDC's format for the credits listed in Modules 1-5. EDC submitted two versions of the format, and USAID approved both, allowing EDC to use its discretion in choosing either version. Set A is the format of Module 1, and Set B is an alternative to be used on the remaining modules. (See Annex F for details.)

Covers

Covers for the disc cases were designed.

IVD Manuals

John Correa edited the IVD User's Guide, System Administrator's Manual and Hardware manual. After they were set and laid out, he delivered them to EDC for production. Once produced, these manuals will be sent to each site and are to be used as reference material.

NIIT requested a copy of the maintenance manuals for the hardware components so they will be better prepared for the installation.

3.4 **Equipment Transfer**

a. NMIC Interactive Videodisc Approval

In March, Director Pendse of WALMI, Aurangabad signed the NMIC videodisc application which would permit shipment of the videodiscs to India. Chetan Sharma then submitted the application to the Department of Electronics (DOE) and received written approval.

b. NMIC IVD Equipment Approval

In March, the DGTD provided the final signatures for the equipment NMIC. The original NMIC, along with the Ministry of Water Resources' letter to customs requesting clearance of the shipment (Custom's Duty Exemption Certificate), was given to P.N. Writer.

c. Shipment of IVD Equipment

In April, John Correa, with input from P.N. Writer and Matrix International, made the final preparations for the shipment of the IVD

equipment. Mr. Correa's plan was for NIIT staff to be present at each site when the equipment arrives in India. NIIT ensured that each site received its designated equipment and that the equipment is not damaged. Dr. Brodman sent an implementation log sheet to NIIT, which gave them a standard procedure to follow when unpacking the IVD equipment.

In March, P.N. Writer agreed to clear the EDC equipment at rates that had been finalized with them earlier, without passing on any escalation of freight charges. Chetan Sharma also formally submitted to the DOE applications for importing laser discs.

John Correa tested the equipment in the warehouse in April and packed equipment for shipment.

d. CVT Acquisition

John Correa coordinated with NIIT the appropriate brand of Constant Voltage Transformers (CVTs) to be purchased for each site. NIIT conducted final negotiations with CVT vendors once EDC provided written authorization. In early March, USAID gave EDC permission to purchase the 14 CVTs needed to complete site preparation. EDC then gave NIIT written authorization to purchase the CVTs from ELENT. The CVTs were inspected at the ELENT factory in mid-March and were delivered to the four sites during the last week of the month.

Once delivered and installed by ELENT technicians in April, Aashutosh Joshi from NIIT inspected CVT installations, checked the line-balancing, installed the distribution boards, and submitted a detailed technical document to be followed at each site.

e. Distribution Boards Purchase

In late March, NIIT initiated the procurement of distribution boards with built-in surge suppressors. The boards were ordered based on certain specifications and were ready for purchase in mid-April.

f. Equipment/Furniture Relocation

In February, Dr. Aeron of RAJAU informed EDC that the institution did not wish to take possession of the household items held in storage in Udaipur. In March, USAID authorized EDC to sell the items based on local market prices and credit the appropriate category of the contract budget. Lovish Chaplot sold the items. (See Annex XXX.)

In late March, Dr. Bhogle of WALMI, Aurangabad informed EDC that the WALMI did want the project's residual property held in storage in Aurangabad, provided that WALMI would not be charged for the delivery and transfer of title for these items. EDC informed USAID of the WALMI's wishes.

g. Export-import issues

The shipment reached India by June. Shipping plans and insurance issues were finalized with Matrix. EDC shipped the equipment and distributed it to all four institutions on behalf of the Director, WALMI, Aurangabad. EDC provided signed letters from the designated recipients at each institution confirming receipt and itemization of the equipment. Installation will be completed in July.

h. Software installed on equipment

John Correa brought completed Module 1 and Module 3 videodiscs to India and installed on the systems.

3.5 IVD Evaluation

- a. In January 1992, Dr. Brodman and Dr. Reeves of the University of Georgia finalized the IVD evaluation test. The evaluation base line data has been collected at each site. Dr. Brodman will continue with implementation of the tests during her current trip to India.

Section 4

CURRENT ISSUES IN PROJECT IMPLEMENTATION

This section discusses important, current issues that are essential in implementing project goals efficiently and effectively.

4.1 Planning and Administration

a. Videodisc Copyright Approval

In February, EDC submitted to USAID a follow-up request to copyright the interactive videodiscs. EDC had previously requested this approval and was informed by USAID that such approval was contingent upon Government of India (GOI) approval.

b. NIIT Responsibilities

In January, EDC and NIIT agreed that, given project plans, productivity would have to be increased to ensure that all deadlines were met. It was also agreed that increased quality control, new testing methods, and improved communications would be instituted by NIIT and monitored by EDC.

In compliance with this agreement, NIIT held an internal meeting in mid-February that focused on EDC's concerns. They developed a management structure consisting of over ten employees involved in the IVD project. More specifically, NIIT selected Bhaskar Chavali as the part-time programming manager with a pool of other NIIT programmers available on an as needed basis. However, Dr. Brodman suggested that NIIT construct a smaller, tighter team led by a full-time programmer who is fully cognizant of project developments. Dr. Brodman also requested that NIIT forward one or two resumes of additional programmers who NIIT guarantees will always be available.

c. Schedule

Project activities such as programming, production and development of Modules 2 and 3 continued despite delays in procuring the NMIC. EDC attempted to minimize the effect of this delay by conducting some of the disc development in the U.S., e.g., graphics production.

d. EDC and NIIT Progress Meeting

In the progress meeting held at EDC in early March 1992 between Dr. Brodman, John Correa, Eric Schnur and Ashish Basu of NIIT, the following issues were discussed: programming, equipment procurement, site preparation, equipment installation and system training.

Module 2 Programming

It was estimated that NIIT will require 3 full months to program and debug Module 2.

Module 3 Programming

Communications related to this module have improved since Bhaskar has become a part of the NIIT Project Team. His role as an Administrative Manager is seen as a benefit to the Project. However, it was the consensus among EDC project staff that a Technical Lead Person also needs to be added to NIIT's Project Team. This person would be able to resolve complex technical issues, and would oversee and be familiar with all day-to-day programming efforts conducted by NIIT. This is especially critical as NIIT may be called upon to simultaneously program Modules 2, 4 and 5.

NIIT will submit a resume of one proposed person who can assume the position of Technical Lead and resumes of programmers who can complete programming on other modules, or perform programming tasks as directed by EDC.

Equipment Procurement

EDC needed to procure 50 distribution boards, manufactured in India, that are compatible with the IVD systems. The estimated cost per board was Rs 700. Dr. Brodman gave written authorization to P. Rajendran, Executive Director of NIIT, to procure the boards in India from a reputable supplier.

It was also determined that EDC needed to purchase 50 Mono headphones, manufactured in India, that were compatible with the IVD systems. Dr. Brodman gave NIIT verbal authorization to purchase these headphones. A copy of the NIIT purchase order was submitted to EDC for approval prior to procurement.

Also needed were 50 cables for the IVD systems. A prototype of

this cable was originally made by John Correa and tested on Jim Robinson's system. Mr. Correa ordered 50 custom-made single harness cables after receiving authorization from Dr. Brodman, based on confirmed unit prices. The cost per cable was \$7.00.

Site Preparation

Ashish Basu mentioned in this meeting that although electrical connections for grounding and power-up have been completed for the sites, it did not appear that all institutions, if any, were responsive to NIIT's final instructions regarding line-balancing. NIIT provided diagrams to the sites at the end of January detailing what needed to be done. Dr. Brodman contacted all sites, instructing them to implement the procedures outlined in NIIT's fax of January 29, 1992 regarding line-balancing.

Equipment Installation

A representative from ELENT, the CVT manufacturer, tested and installed the CVTs at each site. NIIT also sent Aashutosh Joshi to inspect the sites and perform follow-up technical tasks (see 3.4, above). Prior to installation, EDC had provided written procedures for the delivery, physical inspection, site acceptance, installation, and turn-on of the CVTs. EDC also notified each site as to whom was to be present at the time of CVT installation; including, but not limited to, a system maintenance person, a carpenter, and an electrician.

Dr. Brodman prepared two detailed lists of procedures (for NIIT and each site) to be followed for delivery, inspection, acceptance, assembly and turn-on of the systems. Among information included was: a procedure log, site personnel who should be available, acceptance and damage reporting procedures, and location of stored equipment.

Systems Training

In March, Dr. Brodman reviewed the Module 1 content with John Correa so he could train site personnel and instructors how to use the disc. Dr. Brodman coordinated a training schedule for Mr. Correa with each site.

e. Budget analysis

In April, EDC reviewed the tasks remaining in completion of the MCBIVD project, including the impact of the unanticipated delay of the NMIC. Additionally, EDC requested that the remaining funding of \$388,930 be released by USAID.

f. Equipment

In April, Ashish Basu informed EDC that it would require one system for each person working on the project, a total of at least five systems.

g. NIIT Compuserve Pricing

In May, it was determined that CompuServe would be used as a reasonably-priced, effective route for exchanging files among programmers in the U.S. and India.

4.2 Training and Technology Transfer

a. Equipment repair

By April, NIIT had a few items that need to be repaired. Among them were a Visage monitor, a printer, and a videodisc player. Also, Ed Robbins' CVT was down. It was found that the monitor's power supply was its problem, and was fixed. Mr. Robbins' CVT was tested, repaired, and returned to him.

As to the disc player, John Selvam was asked to give a cost estimate on how much it would cost PN Writer to do the paperwork to ship back a broken disk player from NIIT. Based on his figures, it was decided that it would be shipped to the U.S. for repairs and then shipped back under the NMIC. However, before anything can be sent to the U.S., paperwork for Customs must be completed by MWR and WALMI, Aurangabad.

4.3 Videodisc Production

a. Schedule

As mentioned in Section 4.1, video programming for Modules 2 - 4 progressed, but behind schedule due to the delay in the issuance of the NMIC. EDC attempted to compensate for this delay by developing graphics in the U.S. However, the delay dragged on and production was inevitably thrown off schedule.

b. Module Credits

On February 13, EDC submitted to USAID two versions of a format for the Module 1-5 credits. (Please see Annex E.) Shortly afterwards, a new federal regulation was released that stated that AID should be acknowledged in all videos and that the views expressed in the products do not necessarily reflect those of AID.

In light of the new regulation, EDC submitted new versions to USAID requesting approval of the revised format (please see Annex F). Since Module 1 had already been completed, and it would have been difficult to revise the credits in this module, EDC also requested permission to apply this new regulation to Modules 2-5. USAID granted permission to EDC for both requests.

c. Module 1

In March, John Correa discussed two concerns with Eric Schnur: ensuring that the bug was fixed and the logistics of Eric's delivery of the final version of Module 1 along with the installation program he wrote.

d. Module 5

In May, Jane Sallis referred Steve Lambert as a programmer for Module 5. EDC received a proposal from Mr. Lambert in which he estimated a total cost of \$16,000 based on the current design of script. He began the project in June and will have it completed and sent to EDC on or before September 15th.

Dr. Brodman asked NIIT to find out if and where they could rent editing equipment.

Also in May, Jane Sallis submitted a first draft design of Flumes and Weirs and a preliminary shot list for it. She had completed the design in June.

4.4 **Equipment Transfer**

a. Shipment Preparation

In February, Dr. Brodman and John Correa coordinated with NIIT the final stage of shipping the IVD equipment to India. They agreed NIIT would have the following responsibilities: a) have someone at each site to receive the equipment when it arrives, b) be sure each site gets its

designated equipment and that there is no damage to the equipment, c) be sure the equipment is put in a safe place, and d) unpack and assemble the systems without turning on the power.

Dr. Brodman sent to NIIT an implementation log with each task clearly listed.

b. CVT Acquisition

See 3.4, above.

Ashish Basu of NIIT recommended ELENT, the largest supplier of CVTs in India, as a vendor. NIIT has ordered many systems from this vendor and finds them to be extremely reliable. Since NIIT is one of their largest customers, NIIT expects to receive a 10-15% discount on their purchase. Prior to NIIT's recommendation, they submitted to EDC bids from three CVT vendors, as required under the USAID contract.

c. NMIC Equipment Approval

Although EDC had received all signatures from the DGTD for all items of the NMIC by March, one final form, the Duty Exemption Certificate, was required before EDC was allowed to ship the IVD systems to India. This continued delay had a substantial impact on NIIT's programming schedules for Modules 2-5.

d. Equipment in India

John Correa and Chetan Sharma decided to wait in dealing with the transfer of equipment already in India to the NMIC until after the equipment from the U.S. had been cleared.

4.5 IVD Evaluation

a. Evaluation Plans

It was EDC's intention to conduct IVD evaluation tests during the period November 1991 through April 1992 and subsequently, analyze evaluation data and develop the report. However, delay in issuance of the NMIC postponed EDC's plans. Dr. Brodman proceeded with those aspects of the evaluation plan that did not rely on the NMIC. Once the NMIC was issued, the evaluation schedule proceeded as planned, although the dates were revised to reflect the more than three month delay.

Section 5

FINANCES

	Expenditures			% Spent
	Budget Amount	to June 30, 1992	Unspent Balance	
Other Direct Costs	721,799	472,952	248,847	65.52%
Equipment	369,213	374,450	-5,237	101.42%
Salaries & Wages	1,230,558	1,033,922	196,636	84.02%
Travel & Per Diem	352,858	250,454	102,404	70.98%
Training	55,093	55,093	0	100.00%
G&A (Direct)	756,816	580,798	176,018	76.74%
Subcontracts				
Datamation		18,946		
Gateway		5,771		
Geovision		52,272		
Rod Daynes & Assoc		14,800		
AAPC		8,000		
NIIT		80,439		
Colorado State University		90,218		
Total Subcontracts	377,849	270,446	107,403	71.58%
G&A (Subcontracts)(1)	24,744	16,060	8,684	64.90%
TOTAL	3,888,930	3,054,175	834,755	78.54%
Obligated Funds		<u>3,888,930</u>		
Obligated Funds Unspent			<u>834,755</u>	

(1) Travel line includes \$50,757 in International Air Travel which bears the 5% Subcontract overhead rate.

The undersigned hereby certifies that (1) the fiscal report and attachments have been prepared from the books and records of the Contractor in accordance with the terms of this contract, and to the best of my knowledge and belief, that they are correct, that the sum claimed under this contract is proper and due, that all costs of contract performance (except as herewith reported in writing) have been paid or will be paid currently by the contractor when due in the ordinary course of business, that the work reflected by the costs above has been performed, that the quantities and amounts involved are consistent with the requirements of this contract, that all required Contracting Officer approvals have been obtained, and (2) appropriate refund to AID will be made promptly upon request in the event of disallowance of costs reimbursable under terms of this contract.

BY: Joseph F. Flaherty
 TITLE: Vice President & Treasurer
 DATE: October 15 1992

Annex A

CONSULTANTS' AND STAFF ASSIGNMENTS AND DURATION

The major inputs are in terms of consultant and staff time and of cash expenditures. The latter are included in the budget presented in Section 5. Consultants' and staff time and assignments are presented below.

<u>Consultant/Staff</u>	<u>Time & Location</u>	<u>Assignment</u>
Janice Brodman Project Director	January-June 1992 4 months in U.S. 2 months in India	Project Director handles administration, supervision, coordination of all project activities: <ul style="list-style-type: none"> - Production of 5 IVDs - Training of Core Teams - Evaluation of IVD
Edward Robbins IVD Producer/ Field Manager	January-June 1992 Full time in India	Coordinates and implements content development, design and graphics of Module 4
Eric Schnur IVD Producer/ Head of Programming	January-June 1992 Full time in U.S. 2 months in India	Coordinates and implements content development, design and programming of Module 3
James Robinson IVD Producer/ Head of Design Consultant	January-June 1992 6 months in U.S.	Coordinates and implements content development and design of Modules 2, 3, and 5
John Correa IVD Producer Consultant	January-June 1992 3.5 weeks in U.S.	Tested and evaluated hardware/software packages for IVD systems; reviewed voltage stabilizer requirements for NIIT; prepared programming specs for Mod. 2; tested Compuserve; purchased digital audio cables
Andrew Manzardo Subject Matter Expert	January-June 1992 2 weeks in U.S. 1 week in India	Assisted Ed Robbins with design and development of Module 4; established communication between Ed and potential contact persons for Module 4

Annex B

OBJECTIVES FOR JULY 1992

The following objectives for July 1992 were developed with USAID.

<u>Proposed Objectives</u>	<u>Completion Dates</u>
1. Equipment reaches India	July 5, 1992
2. Begin programming for Module 5	July 5, 1992
3. Begin shooting of Module 5	July 15, 1992
4. Complete NIIT cost study on Compuserve	July 15, 1992
5. Install Modules 1 and 3 at sites and begin training	July 30, 1992
7. Complete manuals and send to India	July 30, 1992
8. Complete inventory list of equipment and other items	July 30, 1992
9. Begin alpha testing Module 4	July 30, 1992

- 20 -

Annex C

PROGRESS REPORTS

EDC prepares and issues Monthly and Semi-annual Progress Reports and Project Implementation Plans. A list of reports with the date submitted for each is presented below.

<u>A. Monthly Reports</u>		<u>Date Submitted</u>
1.	July 1991	August 1991
2.	August 1991	September 1991
3.	September 1991	December 1991
4.	October 1991	December 1991
5.	November 1991	December 1991
6.	January 1992	
<u>B. Quarterly Reports</u>		
1.	May - August 1989	October 1989
2.	July - September 1990	October 1990
3.	January - March 1991	April 1991
<u>C. Semi-annual Reports</u>		
1.	May - December 1989	January 1990
2.	January - June 1990	August 1990
3.	July - December 1990	March 1991
4.	January - June 1991	August 1991
5.	July - December 1991	February 1992
6.	January - June 1992	September 1992

Annex D

MANAGEMENT COMMITTEE MEETING MINUTES

Management Committee Meeting
Microcomputer-based Interactive Videodisc Training Project
June 11, 1992
New Delhi

The Management Committee of the Microcomputer-based Interactive Videodisc Training Project conducted a meeting in New Delhi on June 11, 1992. Members of the Management Committee in attendance included:

Dr. R. Aeron
Professor
Rajasthan Agricultural University at Udaipur

Dr. D.R. Arora
Project Officer
USAID

Mr. Gomathinayagam
Professor
Irrigation Management and Training Institute
Trichy

Dr. K. Natarajan
Director
Irrigation Management and Training Institute
Trichy

Mr. V.M. Patel
Head of Electronic Data Processing
Water and Land Management Institute
Anand

Dr. M.D. Pendse
Director
Water and Land Management Institute
Aurangabad

Mr. P. Rajendran
Executive Officer
NIIT

Dr. Janice Brodman
Project Director
EDC

Mr. Ed Robbins
Field Manager
EDC

D-1

Ms. Parimala Inamdar
Production Associate
EDC

The meeting addressed the following issues:

1. Review of Project Progress on Videodisc Modules

Dr. Brodman presented the progress to date on the five videodisc modules: Module 1 is completed and tested; module 2 is completed and awaiting installation of the IVD systems in India in order to conduct field testing; module 3 is in the final stages of programming and graphics production; module 4 design has been completed and production to begin shortly; module 5 design will be completed within the coming two weeks and production will begin.

Dr. Brodman also discussed the impact of the delay in receipt of the NMIC on project progress. One consequence has been that programming of two discs that was planned to be conducted in India had to begin in the U.S. in order to complete the discs by September 30, 1992. Thus, NIIT will program two modules in India, while two other modules will be programmed in the U.S.

Another consequence is that field testing that was to begin in October 1991, will only begin in July or August of 1992.

Finally, the IVD evaluation tests have been delayed by eight months as the IVD data cannot be collected until the IVD systems have been installed at the sites (the baseline data were collected more than a year ago.)

The ultimate result is that two major activities will not be completed as of the project's end September 30, 1992: (1) The five modules will be complete, but will not have been fully tested, (2) the IVD evaluation will be incomplete. It will take approximately an additional three months to complete these activities.

The committee discussed this situation and asked Mr. Arora for clarification as to whether USAID could extend the MCBIVD project in order to complete the testing of the videodiscs and the IVD evaluation. Mr. Arora explained that USAID has had internal discussions on this matter, and has decided that it is not possible to extend any activities that fall under the WRM&T program, as all funds for that program will be closed out on September 30, 1992.

The committee then discussed whether USAID may be willing to support another project for a period of three months to complete the activities that will not be completed due to delay in receiving the NMIC. Mr. Arora explained that AID was considering such a project. However, there were questions regarding how it could be done, and under what program it could be funded.

The Management Committee members unanimously decided to recommend to USAID that they support such a project, as significant funds have already been spent on the IVD activities and the marginal additional funds required to complete the activities were

relatively small, while the benefit of completing the discs and the evaluation is great. Furthermore, the reasons resulting in incomplete activities were valid, and beyond the control of the contracting company, EDC.

2. Discussion of the IVD Evaluation

Dr. Brodman discussed the status of the IVD evaluation, explaining that the baseline data have been collected at each site. However, the IVD data cannot be collected until the IVD systems are installed at the sites. The project plan called for the IVD evaluation tests to be conducted from October 1991 through May 1992; the eight month delay in installing the IVD systems makes it very difficult to collect the required data. Dr. Brodman asked the Committee members whether the IVD tests could be conducted at their institutions in the period mid-July through September 1992. All of the members are confident that the IVD tests can begin in July or August, as they have courses beginning in July.

WALMI Aurangabad has continual courses, with a long term course beginning June 15 and one beginning July 6, as well as many short term courses. IMTI Trichy has two short term courses beginning end of July and mid-August. WALMI Anand has an eight week course that begins June 18 and a long term course beginning in August. RAJAH has semester courses from August through September.

Therefore, the Committee concluded that IVD data can be collected between July and September for the current project, and afterwards if a new project is supported by AID. This would provide sufficient data to conduct the analysis and produce the evaluation report.

Dr. Patel noted that WALMI Anand also wanted to conduct "post-post tests." The format was to give a pre-test, then IVD training, then a post-test, then regular training, then a post-post test; in addition, there would be a pre-test then regular training, then a post-test, then IVD training, then a post-post test.

Dr. Brodman said that those post-post tests would be extremely valuable, and the other sites had also discussed such tests, but that it was impossible to do those tests until the IVD systems were installed. It would be useful to discuss with the WALMIs the possibility of doing those tests after the systems were installed.

3. Planning for Project Completion

A list of the equipment and software that EDC purchased for the project was distributed to the Committee members. Some of the equipment, e.g., the IVD systems, are earmarked for each site. The distribution of certain other equipment has yet to be determined.

Dr. Pendse noted that although the distribution list cites 355 videodiscs in total, the NMIC request for the videodiscs cites 900

discs. Dr. Brodman explained that the NMIC request was based on a very high number, as the exact number was not known at the time of the submission of the NMIC application, and it was essential to ensure that sufficient numbers were stated in the NMIC application. She also noted that EDC has actually purchased 100 copies of each videodisc, but USAID must receive an as yet unspecified number. If there are discs remaining, they will be distributed to the sites.

It was also noted that the discs being developed by the WALMI Aurangabad Core Team and RAJAU Core Team will be pressed to produce one disc for WALMI Aurangabad and one for RAJAU.

The members reviewed the list and came to a consensus related to recommendations for distributing each item to particular institutes. The distribution is presented in Annex A. Dr. Brodman will complete a formal document for the Ministry of Water Resources, detailing the Committee's recommendations, when the final project inventory is completed.

Dr. Arora explained that all equipment and other items purchased for the project must be turned over to the Ministry of Water Resources, for distribution to the sites.

The Committee discussed the possibility that some systems will be required after September 30, 1992, if a new project of approximately three months is supported by USAID. The Committee decided to recommend to the Ministry that, if such a project were funded, the formal transfer of ownership of the IVD systems and other equipment and software to the MWR would be completed, but the physical distribution would not take place until those project activities were completed.

The Committee also discussed the shipping of the IVD systems. Dr. Aeron requested that copies of the formal NMIC papers accompany the shipment to each site so that any question raised by State authorities, particularly related to control, can be resolved quickly and easily. Dr. Brodman said she would arrange for the papers to accompany the shipment, and her office would also send a copy of those papers to each of the Committee members.

4. Future Needs

The Committee discussed how IVD technology might be of value to India in the coming years, and the particular needs and interests of the participating institutions.

Dr. Aeron noted that his institution is capable of and interested in building its capacity for developing videodisc courses, and with some assistance, multimedia development can really take off. In order to do so, support is needed for the RAJAU Core Team to place one person in charge of IVD courseware development, and to access professionals in areas in which they need assistance, such as video

production and script writing. They could establish a multidisciplinary center that would be a nodal point for development of IVD on many topics in addition to irrigation management. He also explained that his institution already conducts training for public sector staff and for private companies.

However, he noted that if such an activity were supported by USAID or the World Bank, then it was essential that it be an activity which GOI would support for five years, and that the State Government would be willing to support afterwards.

Dr. Pendse suggested that it would be useful to test the effectiveness of IVD as a training tool for a couple of years to determine the extent to which the technology will be effective and appropriate, and in what particular areas it is superior, before further training in IVD courseware development skills. He noted some areas for which IVD is an very appropriate medium, e.g., for dealing with special problems such as earthquakes, where quick reactions and correct decisions are crucial. He also emphasized that questions of cost must be answered.

In addition, he observed that his institute does not seem to be appropriate for developing those skills, as there are professionals who already have related skills in advanced video production and programming, while the WALMI staff are focused on training in irrigation management and currently do not have advanced skills in those areas. It would be costly and time consuming to develop those skills among the WALMI faculty, and they are already fully absorbed in their training activities.

However, the Core Team at WALMI Aurangabad as well as at RAJAU can serve as a coordinating body for future IVD developments, so it is important that the WALMI faculty know what goes into developing IVD courseware, and have a basic knowledge of the elements, including needs analysis, design, production and programming. He also suggested that a multidisciplinary committee could be developed, which would include the private sector, to determine where IVD can make a contribution. He noted that some individuals from private sector companies had visited the WALMI to see the IVD; however, they were concerned about getting more information on the cost of developing courseware.

Dr. Arora noted that although IVD is costly today, that the prices are coming down and will continue to decline. The same skills that the Core Team has developed will be appropriate for the new, less expensive, multimedia technologies. However, continuity is required, along with a commitment to continue some production activities and thereby ensure that those skills do not deteriorate.

5. Dr. Arora discussed the USAID, one year program (October 1992 through September 1993) for follow-on activities related to the WRM&T project. This program could include activities to disseminate

information on IVD, and conduct evaluation and institutionalization activities of the WHM&T project. For example, there may be a project to demonstrate IVD more widely in India, both in irrigation management and in other sectors, public and private, and to determine the economics of IVD technology in India.

6. The Committee made two recommendations with regard to future activities related to IVD technology:

(a) First priority should be to institutionalize the equipment at the four pilot sites, including training in hardware maintenance and trouble shooting, using the technology effectively, etc.

(b) There should also be activities to systematically test, evaluate, and explore the potential for IVD in India, in public and private sectors

7. P. Rajendran, of NITP, suggested some ways in which the participating institutions could spread information about IVD. These included conducting a session at National Conferences on Irrigation Management, having interviews with writers for computer journals and industry publications on how multimedia applications can affect rural life, and making presentations at computer groups. For example, the Computer Society of India is holding a meeting in Madras on September 15, and there is a Computer Industry conference in Delhi on August 25. They could be notified of the IVD project, and perhaps at the September conference a presentation could be made. NITP will be interested in making such presentations as part of their activities at those conferences.

Dr. Pendse suggested that it would also be useful to make presentations at local Computer Society groups.

9. Dr. Aeron asked whether the videodisc source code would be available to the Core Teams. Dr. Brodman said that the source code will be available both to the Core Teams and to the Ministry of Water Resources, and there is internal documentation in the code.

10. Dr. Aeron noted that as part of this project, his Core Team is working on a module of their own, and has greatly enjoyed the work. He said that once they got involved in designing and producing the videodisc course, they became fully absorbed in it, and have a far better understanding of what goes into developing IVD courseware. Their level of involvement due to this experience is tremendous.

P. Inamdar also noted that the Core Teams have experience in developing content for other discs and therefore now have quite good experience in developing content for multimedia.

11. The next Committee meeting is set for the end of September 1992, the date to be determined by schedules of the Committee members.

Equipment & Software to be Distributed by the Microcomputer-based
Interactive Videodisc Training Project

Interactive Videodisc Systems

Each system consists of one CPU with video-overlay board and voice digitizer, and mouse; one RGB multiscan monitor; and one NTSC/PAL laserdisc player.

WALMI Aurangabad: 15 systems
WALMI Anand: 10 systems
IMTI Trichy: 10 systems
RAJAU: 15 systems

Please note that each institute is expected to keep 2-3 systems as spares, from which parts can be taken if necessary to repair active units.

Videodiscs

There are five videodisc modules: "Maintenance," "Drainage," "Crop/Water Requirements," "Water Users Associations," "Water Flow Measurement."

WALMI Aurangabad: 20 copies of each module (100 total)
WALMI Anand: 15 copies of each module (75 total)
IMTI Trichy: 15 copies of each module (75 total)
RAJAU: 20 copies of each module (100 total)
Ministry of Water Resources: 1 copy of each module (5 total)

Step down transformers and stabilizers

Each site receives one transformer for each IVD system and sufficient stabilizer equipment for their IVD systems.

Other Computer Hardware

The following distribution of computer hardware is recommended by the Management Committee:

1. PC/AT microcomputer w/ color monitors - 2 units. More than two years old; fair condition - to Aurangabad & Trichy.
2. MSP 45 printers - 2 units. One in fair condition; one under repair - to Aurangabad & Trichy.
3. Methodex PC/XT w/ monitor - 1 unit. More than two years old; poor condition - to Aurangabad.

Photographic & Audio Equipment

The following distribution of photographic equipment is recommended by the Management Committee :

1. VHS cameras - 2 units. More than two years old; fair condition - Anand & RAU.
2. Samarat cameras (35mm half-frame) - 2 units. More than 2 years old; fair condition - Trichy & RAU.
3. Sony tape recorders - 2 units, More than two years old; fair condition - Aurangabad & RAU.

Other equipment

Each site will receive one PC toolkit.

The following distribution of other equipment is recommended by the Management Committee :

1. UPS (1.5 K) - 2 units. More than 2 years old; fair condition - Aurangabad & RAU.
2. Computer stabilizers - 2 units. More than 2 years old; fair condition - RAU & Aurangabad.

Computer Software

The following software will be distributed as noted:

1. Everex software - one set with each IVD system
2. MS DOS - one set with each IVD system
3. Visage software - one set with each IVD system.

The following distribution of software is recommended by the Management Committee :

1. Microsoft C - 6 sets - RAU
2. Microsoft Macro Assembler - 1 set - Programming language for use with C language - RAU
3. MS Mouse & Paintbrush - 1 set - Aurangabad
4. Hijaak 1 set - Aurangabad
5. PC Tools - 1 set - RAU
6. Dr Halo - 2 sets - Aurangabad & RAU
7. C Tree 1 set - RAU
8. Checkit - 1 set - Trichy
9. Brief - 1 set - Anand
10. Paradise 1 set - Aurangabad
11. Metawindows & Menuet 1 set - RAU
12. PCX software - 1 set - RAU
13. Brooklyn Bridge - 1 set - RAU

Annex E

UDAIPUR EQUIPMENT SOLD

Form B

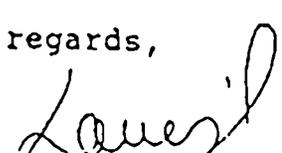
Dr. Janice Brodman
Education Development Center, Inc.
55 Chapel Street
Newton, MA 02160
USA

Dear Dr. Brodman:

Please be advised that I, Lovish Chaplot, have disposed all of the remaining Udaipur field office property and have received the sum of Rs 6000/- for the following items:

<u>Furniture</u>	<u>Condition</u>
1. 1 Double bed	Good
2. 1 Small bed	Good
3. 1 Table with 4 chairs	Good
4. 1 Center table	Good
5. 2 Mudda	Good
6. 2 Gas burners	OK
7. 2 Chairs	Poor
8. 1 Mattress	Poor
9. 2 Muddee	Good

Best regards,



Lovish Chaplot

30/4/97
Date

EDC Education
Development
Center, Inc.

INTERNATIONAL PROGRAMS

FORM A

DISPOSITION OF UDAIPUR FIELD OFFICE RESIDUAL PROPERTY

<u>Furniture</u>	<u>Amount Paid</u>	<u>Signature</u>
1. 1 Double bed	<u>900/-</u>	<u>R.P.</u>
2. 1 Small bed	<u>300/-</u>	<u>Mukesh</u>
3. 1 Table with 4 chairs	<u>700/-</u>	<u>DR</u>
4. 1 Center table	<u>500/-</u>	<u>R.P.</u>
5. 2 Mudda	<u>50/-</u>	<u>SHRI</u>
6. 2 Gas burners	<u>1900/-</u>	<u>And...</u>
7. 2 Chairs	<u>100/-</u>	<u>Jh</u>
8. 1 Mattress	<u>200/-</u>	<u>Devil</u>
9. 2 Muddee	<u>50/-</u>	<u>And...</u>

E-2

55 CHAPEL STREET

Annex F

CREDITS FORMAT

Version A

[Screen 1]

Welcome to...
Diagnosis of Maintenance Problems in Distribution Networks

[Screen 2]

Produced by
Education Development Center, Inc. USA
with
Water and Land Management Institute, Aurangabad
(or RAU, as appropriate)

[Screen 3]

For
United States Agency for International Development/India
Microcomputer-Based Interactive Videodisc Training Project

*see the
change
in the
attached
letter*

Version B

[Screen 1]

Welcome to...
Diagnosis of Maintenance Problems in Distribution Networks
Produced by
Education Development Center, Inc. USA

[Screen 2]

with
Water and Land Management Institute, Aurangabad
(or RAV, as appropriate)
under the auspices of
Ministry of Water Resources, Government of India
(Signature)

[Screen 3]

For
United States Agency for International Development/India
Microcomputer-Based Interactive Videodisc Training Project

See the
change in
the
attached
letter

February 19, 1992

Mr. Leonard Kata
Contracts Officer
USAID, New Delhi

Dear Mr. Kata:

On February 13, 1992, we transmitted a request regarding the credits to appear on the interactive videodiscs. Today I have received a new section 752.7034 of the AIDAR (Federal Register, February 13, 1992) that relates to the credits. It states, among other things:

AID shall be prominently acknowledged in all...videos, and the product shall state that the views expressed by the author do not necessarily reflect those of AID. Acknowledgements should identify the sponsoring AID Office and Bureau or Mission...

In view of this regulation, we would like to make the following change for Modules 2 - 5:

In place of the AID-reference credit we sent on February 13, 1992:

For
United States Agency for International Development/India
Microcomputer-based Interactive Videodisc Training Project

We would like to use the following credit:

This videodisc was made possible through support provided by the India Mission, U.S. Agency for International Development, under the terms of Contract No. 386-0484-C-00-9131-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development."

Please let me know if this credit meets with your approval for Modules 2 - 5.

As Module 1 is already completed, and it would be difficult to make this change to that Module, we would appreciate receiving approval for your choice of the credits we sent on February 13, 1992, to be used for Module 1.

Thank you for your assistance in this matter. In order to finalize Module 1 for shipping, I will appreciate receiving your comments as soon as possible.

Sincerely,

Janice Brodman
Project Director