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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

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1. TRANSACTION CODE (IX' APPROPRIATE BOX)
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PP

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2. COUNTRY/REGIONAL ENTITY/GRANTEE
Interregional GTS - KPA 19

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER
931-11-995-097

5. BUREAU
A. SYMBOL: TA
B. CODE: 6

6. ESTIMATED FY OF PROJECT COMPLETION
FY 79

7. PROJECT TITLE - SHORT (STAY WITHIN BRACKETS)
[LDC Industrial Institute Effectiveness]

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION
A. INITIAL MO. YR. 6 76 B. FINAL FY 78

9. SECONDARY TECHNICAL CODES (MAXIMUM SIX CODES OF THREE POSITIONS EACH)

10. ESTIMATED TOTAL COST ($000 OR EQUIVALENT, $1 = ____)

A. PROGRAM FINANCING	FIRST YEAR B. FX	C. L/C	D. TOTAL	ALL YEARS E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL						1,445
(GRANT)	( )	( )	( )	( )	( )	(1,445)
(LOAN)	( )	( )	( )	( )	( )	( )
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST GOVERNMENT						550
OTHER DONOR(S)						
TOTALS						1,995

11. ESTIMATED COSTS/AID APPROPRIATED FUNDS ($000)

A. APPROPRIATION (ALPHA CODE)	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	FY 76 D. GRANT	E. LOAN	FY TQ F. GRANT	G. LOAN	FY 77 H. GRANT	I. LOAN	ALL YEARS J. GRANT	K. LOAN
			630		340		250		1455	
TOTALS										
12. ESTIMATED EXPENDITURES			60		200		700			

13. PROJECT PURPOSE(S) (STAY WITHIN BRACKETS) [ ] CHECK IF DIFFERENT FROM PID/PRP

[To assist selected LDC industrial research institutes in improving their organization, management, marketing and technical skills toward increased participation in the development of their country. To disseminate the results to IRIs worldwide.]

14. WERE CHANGES MADE IN THE PID/PRP FACESHEET DATA NOT INCLUDED ABOVE? IF YES, ATTACH CHANGED PID AND/OR PRP FACESHEET.

[ ] YES [X] NO

15. ORIGINATING OFFICE CLEARANCE

SIGNATURE: John Fry

TITLE: Deputy Director

DATE SIGNED: MO. DAY YR.

16. DATE RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MO. DAY YR.

AID 1330-4 (5-75)

Project Paper

Development of LDC Industrial Research Institute Effectiveness

Part 1. Summary and Recommendation

A. Recommendation

An incrementally funded, negotiated source procurement with Denver Research Institute for FY 1976 - FY 78.

	GRANT	DRI	LDC Institutes*
FY 76	630	(390)	(240)
TQ	340	(260)	(80)
FY 77	250	(205)	(45)
FY 78	225	(225)	(-)
Total	1445	(1080)	(365)

* To be dispersed and managed by DRI

B. Project Description

This a centrally-funded project sponsored by the Office of Science and Technology with the purpose of assisting LDC institutes to increase the effectiveness of their participation in country development. The project will provide for interactions with approximately 50 LDC institutions and will utilize, in varying degrees, institutionsal linkages between LDC Institutes and the contractor, training workshops, grants for R&D in LDCs, problem oriented technical assistance, information services, and assistance in the establishment of LDC technical outreach services. The AID inputs will be supplemented with commitments of time, facilities, equipment and local currencies by participating LDC Industrial Research Institutes (IRI).

The project outputs which will be produced include:

1. Senior and middle-level management personnel more highly trained in marketing, project selection, techno-economic analysis and project management.

2. Handbooks and training materials designed and tested for use by LDC Institutes in self-initiated training activities.

3. Established linkages with at least three LDC institutes.

4. Demonstration of the application of appropriate technologies to a set of local development problems through in-country R&D.

5. Institutional changes in the ways that LDC IRIs interact with the public and private sectors.

Denver Research Institute (DRI), under two prior AID financed contracts, has worked with LDC institutes in evolving a set of assistance mechanisms designed to address the factors which have limited the IRI impact on local development problems. Initial tests of the mechanisms carried out under the previous contracts support the judgement that the proposed implementation project can produce the projected outputs and end of project status. This status will be:

-- LDC capability for staff training in project selection and management;

-- operational IRI systems for interfacing with the user community;

-- demonstrated IRI performance on development problems in selected countries; and

-- increased government and industry commitment to utilization of IRI resources.

C. Summary Findings

This project is supportive of PD 51 which cites as a specific TAB responsibility, "--- strengthening the capabilities of LDC industrial service institutions to assist local industries in selecting, adapting, and using technologies suited to their circumstances, with special attention to support for small-scale industry." A three year implementation effort is proposed as a part of KPA 19 - Science and Technology Institutional Development.

A formal review of the preceding DRI contracts was held in 1975. The principal recommendations of the panel (Annex A) pertinent to this project paper are:

-- the activities of the two projects be combined in a single contract with a revised goal and indicators;

-- establish with each linked institute a set of change goals for the institute over the next 3-5 years. Delineate the DRI/AID inputs to the planned change;

-- Develop alternative grant review and award mechanisms to better achieve industrial interaction by the LDC institudes; and

-- seek to more closely relate the project goals and activities to the local AID Mission interests and priorities.

The field response to the general concept of linkaged S&T institutions and to DRI activities in particular has generally been favorable. The AID missions in Bogota and Djarkarta have provided funding for DRI inputs to conferences or workshops. Cairo and Djarkarta are considering DRI as a potential resource for segments of proposed S&T programs. Annex B is a compilation of cables, airgrams and letters which reflect the views of AID missions, participating IRIs and LDC private sector institutions on past and planned project activities. These comments support the view that a successful implementation project can lead to replication and utilization by IRIs throughout the world.

D. Project Issues

The review of the preceding projects and comments on the PID for the proposed project raised the following issues:

1. More effort should be devoted to increasing IRI efforts in small scale industry, appropriate technology, and rural enterprise.

2. The goals, objectives and change indicators need refining as the project moves to the implementation phase.

3. The LDC institutes are often constrained in their developmental efforts by government policies and actions. The project should assist the IRIs in identifying critical policy constraints and strategies for their alleviation. and

4. The project plan does not provide funding for a formal evaluation by external reviewers.

These issues are addressed in Part 3. Project Analysis.

Part 2. Background and Detailed Description

A. Background

Industrial Research Institutes represent a valuable resource in many developing countries but a resource that is largely underutilized and often misdirected in its efforts. The National Academy of Sciences undertook a study of U.S. technical assistance initiatives that could remedy the problem. The study, supported by AID, culminated in the 1973 report - Research Management and Technical Enterpreneurship: A U.S. Role in Improving Skills in Developing Countries.

Several excerpts from the NAS report serve to characterize the Academy's perception of the problem.

"It is generally acknowledge that LDC scientific and technical infrastructures, largely patterned on those of advanced industrial societies, have proved to be less effective than was hoped in stimulating technological change and industrial growth. Of the many explanations advanced, one is preeminent and valid for both developed and developing countries: Generating new technology does not by itself result in industrial development; invention is not a synonym for innovation. Economic growth depends on the degree to which industry assimilates and commercializes technology Hence, melding technology and capital with entrepreneurship and management is of critical importance."

"LDCs are increasing their investments in science and technology and are seeking new ways to promote the indigenous development of technology. Most technological development efforts in LDCs have centered on training scientific and engineering manpower and establishing institutions through which this manpower could be put to creative use. Today, the critical importance of the management in developing countries of research, development, and engineering (R,D&E)-particularly in serving the industrial sector-is widely recognized."

"LDC industry's lack of in-house ability to bring about technological improvements, as well as a lack of appreciation of their importance, puts a special burden on the technological institutions that many LDCs have established These institutions should be able to perform the necessary function of helping to educate the entire industrial sector on the type of activities that must be incorporated in the management of their operations. Such activities include, at the low end of the technical spectrum, information services, quality control, troubleshooting, and engineering adaptation. Depending on its capacity to absorb new technology, the recipient industry may need assistance on new product and process development. Technical institutions that monitor new technological developments in selected industrial fields can play critical role in helping indigenous industry to choose technologies that make the best use of the nation's factor endowments."

"Over the years many principles of technical management have become "universals," but, in the panel's view, differing cultural, political, and organizational behavior among LDCs may make it necessary to adapt known techniques to each LDC environment. This opinion, derived in part from observations of unsuccessful efforts to assist LDC research and development organizations, points to the influence of cultural constraints on the assimilation of technological change. Further research is urgently needed on the character of such cultural constraints in the LDCs and on ways for the LDC technical manager or his foreign collaborator to overcome or accommodate to them. Meanwhile, prior experience,

sound common sense, and a consciously developed feel for cultural relativity are the best guides to solving problems in which cultural factors are suspected to inhibit progress."

The NAS report made a number of specific recommendations to AID. These included the following:

1. A series of carefully designed specific training projects in the United States and the LDCs for technical management should be developed on a pilot basis. Successful projects can become models for wider-scale programming in the future. Insofar as possible, these projects should be carried out jointly with LDC institutions and personnel.

   -- Primary emphasis should be placed on training for technological entrepreneurship rather than on research administration narrowly conceived.

   -- Management-development programs, at either the institutional or national level, are necessarily long-term undertakings. In the design of any project, therefore, provision must be made for periodic follow-up review and project evaluation to assess the effectiveness of the project.

   -- It is important also, in the design of a specific project, that LDC personnel in training be prepared and encouraged to introduce and administer such training projects within their own organizations.

   -- Management-training programs designed specifically for multipurpose personnel of industrial research institutes in the LDCs are, in the panel's opinion, most urgently needed to enable these organizations to play a leading role in technological development.

2. Assistance to LDC technological institutes for development of technical extension services that provide technical and managerial help to small and medium firms.

3. Workshops for LDC technological institutes on the methodology for economic feasibility studies and market analysis of consumer and industrial products. Emphasis to be put on the importance of these tools for identifying R&D projects of potential interest to industrial users and as a method of securing contracts for R&D by the institutes. and

4. Carefully selected pilot efforts to encourage LDC technological research institutes to transfer technological innovations developed in their laboratories to the marketplace through venture-capital firms. These pilot experiences should be aimed at providing realistic training for managers of these institutions and, in addition achieve their true mission of being of service to industry.

Denver Research Institute with partial support from AID undertook a worldwide survey of IRIs. This study, begun in 1971, detailed the characteristics of over forty institutes. Purpose, technical areas of competence, staffing, organization, funding and problems, are discussed in the report, The Industrial Research Institute in a Developing Country: A Comparative Analysis.

Based on the foregoing NAS recommendations and the DRI survey TA/OST initiated two projects in 1973. "Coupling with Industry" had as purposes; demonstrate methodologies for commercializing research products of LDC IRIs, stimulate closer coupling of institutes with LDC industrial interests, strengthen capabilities of IRIs to recognize and respond to commercial needs, and heighten LDC awareness of the tangible benefits from well conceived R&D activities. This project was approved through 1977.

The second effort, "Training Research Managers", stated as the purpose; to develop, carryout and evaluate short term executive training programs in developing countries to improve the technical and administrative capabilities of directors, supervisors and other senior personnel of industrial research institutes who are responsible for planning, organizing and supervising industrial research activities and the marketing of research results and services. The courses and course materails are to be developed in a way that will permit LDC institutes to assume the responsibility for continued training activities. The PROP for the training activity was approved through 1975.

The key experimental activities carried out by DRI under the two contracts were:

1. Organization, funding and conduct of regional management training workshops in cooperation with IRIs in Thailand, Turkey and Brazil for more than 60 participants representing over 30 countries.

2. Organization of specialized conferences for IRI, industry and government participants in Colombia and Pakistan.

3. Past workshop evaluations including participant response and followup.

4. Working with LDC counterparts, preparation of handbooks for use by IRIs in the conduct of training workshops. Case studies of LDC R&D projects, course content, reference materials, and conference leadership are among the topics covered.

5. Training of 6 senior personnel from IRIs in workshop organization, management, leadership and group dynamics.

6. Worldwide solicitation of grant proposals from LDC IRIs; formal evaluation of over 30 proposals; award and negotiation of five grants (Nigeria, Colombia, Central America, Thailand and Korea); and management of the grants. Annex C provides details of the awards.

7. Establishment of formal linkages with PCSIR, Pakistan and IIT, Colombia. Negotiations with ASRCT, Thailand are pending (see Annex B, pg. B-4). Protacted discussions with FIIR, Nigeria were halted in 1975.

8. Training of 12 Directors and Sub-Directors from IRIs in the U.S. on marketing of R&D services, the role of techno-economic studies in research projects, organizing technical outreach services, etc.

9. Technical assistance to linked IRIs on specific projects or proposals.

10. An experimental information service to provide "know how" data (specifications for products and processes, patent searchs, design details, etc.) against a limited number of specific, project related requests.

11. Assistance in restructuring IRI organizational assignments to more clearly define responsibilities for contacts with the user community, for proposal preparation and for project control.

TA/OST acted upon the recommendations of the 1975 review (Annex A) with a decision to terminate the existing contracts upon completion of the current statements of work to be followed by the single implementation contract proposed herein.

B. <u>Detailed Description</u>

1. Sector Goal

A. Goal Statement

To improve science and technology institutions in developing countries.

b. Measures of Achievement

1) Increase in appropriate skills of S&T staff.

2. Increased user acceptance of local S&T results and services.

c. Basic Assumptions

1) That LDCs are interested in upgrading their S&T institutions.

2) That some fraction of the senior S&T staff are amenable to change.

3) That external assistance can induce change.

2. Sub-Sector Goal

a. Goal Statement

To strengthen the capabilities of LDC industrial service institutions to assist local industries in selecting, adapting, and using technologies suited to their circumstances, with special attention to support for small scale industries.

b. Measures of Achievement

1) Level of awareness and utilization of IRI services by the target groups.

2) Practicality and cost of products/services rendered.

3) Fraction of IRI resources devoted to local assistance.

c. Basic Assumptions

1) That the IRIs can be motivated to address the needs perceived by users.

2) That the users will recognize the role of appropriate technologies.

3. Project Purpose

a. Purpose Statement

To assist selected LDC industrial research institutions in improving their organizational, management, marketing and technical skills toward increased participation in the development of their country. To disseminate the results to IRIs worldwide.

b. End of Project Status

1) LDC capability for staff training in project selection and management;

2) operational IRI systems for interfacing with the user community;

3) demonstrated IRI performance on development problems in selected countries; and

4) increased government and industry commitment to utilization of IRI resources.

c. Basic Assumption

1) That the assisted IRIs will adapt and adopt U.S. techniques.

2) That cultural and political difference will not seriously limit the utility of these techniques.

4. Project Outputs

a. Senior and middle-level management personnel more highly trained in marketing, project selection, techno-economic analysis and project management.

b. Handbooks and training materials designed and tested for use by LDC Institutes in self-initiated training activities.

c. Established linkages with at least three LDC institutes.

d. Demonstration of the application of appropriate technologies to a set of local development problems through in-country R&D.

e. Institutional changes in the ways that LDC IRIs interact with the public and private sectors.

5. Magnitude of Outputs

a. Training

1) 6 senior staff - 1 mo. ea in residence training at DRI.

2. 100 senior and mid-level staff - 2 wks each on-site workshops.

3) 12 senior staff - on the job experience in management training technique

4) 60 Director or Sub-Directors - 10 day management workshop

b. Handbook

A complete guide to the conduct of regional and in-house management workshops including course outlines, suggested materials, and interactive techniques. The handbook will be tested by LDC conducted workshops monitored by the contractor.

c. Linkages

A minimum of two formal linkages will be maintained. Consideration will be given to adding a third linkage at the beginning of the second contract year. The decision will be based on a first year evaluation of the existing linkages.

d. Appropriate Technology Demonstration

These outputs will be generated by technical assistance to linked institutes and by grant awards to a number of IRIs. The size of individual projects is highly variable but it is estimated that 25 projects will be initiated. Careful selection is hoped to yield a success factor of 50 percent or greater.

e. Institutional Changes

The planned elements of operational change in IRI methods are:

1) Scheduled and formatted interactions with management personnel from the user community to delineate needs and establish mutual understanding, and

2) Establishment of a Technical Outreach Services System for a small-scale industry sector.

Each linked IRI is a primary target for change in the initial contract year. The concept and experience of the linked institutes will be included in regional workshops carried out during the second and third year to stimulate replication.

6. Project Inputs

a. AID

1) Project management - TA/OST 4 man months

2) Funding - $1,445,000

b. Contractor

1) Core Staff, Technical experts and consultants as required, administrative and clerical support.

2) Assistance to regional management workshops for research directors - 6 workshops.

3) Staff development workshops at IRIs - 12

4) In residence training programs for senior staff - 6 LDC staff.

5) Technical assistance to IRIs and small-industry clients - 12.

6) Grant awards for demonstration projects - 5 to 10.

7) Information services - 60 to 75 requests.

8) Assistance in developing outreach systems - 2-3 IRIs.

c. LDC IRIs

1) Staff time
2) Facilities and equipment
3) Logistical support and local meeting expenses
4) Recruitment of new staff

The logical framework for the project is included as Annex D. Experience gained in the previous contracts together with the modifications planned for the implementation project lead OST to believe that these inputs will yield the desired outputs and end of project status. LDC governments have increasingly expressed their desire for greater technological inputs and their concern for improved indigenous capabilities. The commitments to the project by IRIs reflects these LDC aspirations.

Part 3. Project Analyses

A. Technical Analysis Including Environmental Assessment

The NAS study, Research Management and Technical Entrepreneurship, and the survey of IRIs by Denver Research Institute confirm that there is a substantial nucleus of trained personnel in industrial research institutes throughout the world. The IRIs often are routinely funded and enjoy facilities with useful inventories of research equipment. The potential advantages of increased remuneration and better research tools not withstanding the premise of this project is that improved management skills and increased understanding of the practical needs of the potential users of R&D results are key to the utilization of the IRI resource in LDCs.

The two initial projects were experimental efforts to develop and refine assistance techniques which could initiate and accelerate institutional change. The emphases were management training and technical project assistance. The previously noted review made four suggestions for consideration in designing subsequent operational assistance projects. The first of these recommends creation of a single project. The advantages are improved management efficiency and an integration of the assistance techniques both in the LDC perception of the project and in actual fact. The plan proposed provides a unified effort.

The second recommendation was for a more explicit statement of the expected changes in IRI performance and a delineation of contractor inputs. In consultation with DRI and the linked institutes greater specificity of the project elements has been achieved as outlined in the detailed project description. We expect a measurable increase in the level of private sector activity of the IRIs as well as observable changes in their organization which will reflect a commitment to continuing interaction with the user community.

The plan for selecting and awarding grants was reviewed in depth. The nature of previous grants was examined with emphasis on the probability of achieving exploitation. Two points emerged from the analysis. First, there is little prior history of competitive bidding for R&D projects in LDCs. The ability to write specifications, to evaluate project success probabilities and to write contracts for research and development projects is not extant in most LDCs. Secondly, the IRIs do not yet have the capacity to develop project ideas which will elicit risk capital from the private or public sectors. Indeed, a goal of this project is to develop these skills. The grant mechanism, properly employed, can be a major tool for educating both the IRIs and the user community in effective interaction. Stimulation of this interaction will be achieved by awarding grants to the user community for use in soliciting proposals from IRIs. Assistance will be provided to the user grantees in developing work statements and in evaluating proposals. Grants will also be awarded to IRIs on the basis of joint proposals by the IRI and a user institution. This focus on interactive grant awards is responsive to the third suggestion of the review panel.

The fourth review comment entailed increased emphasis on AID priorities. The project plan calls for services to small-scale industry and rural enterprise. Outreach services together with technical assistance will be the primary mechanisms employed. Training programs and organizational studies will also be used to examine the longer range problems of providing technological inputs to the small producers of goods and services in LDCs.

A final issue is the evaluation mechanisms to be employed. Denver Research Institute has developed an internal evaluation system involving self-analysis, informal responses from particpants, and formal questionaires for LDC participants. This effort is laudable and can provide continuous feedback to the project elements. However, an external review and evaluation function is needed to provide AID with necessary data on project performance and impact.

TA/OST recommends that the budget be increased by $25,000 to cover a baseline survey and final evaluation as outlined in 4.c. following.

This project is addressed to the increase of skills and performance of LDC research institutions. As such, the majority of outputs will have no direct impact on the environment. In-country projects receiving technical assistance or grant funds under this contract may, however, have environmental consequences. These projects cannot be specified at this time. It will be incumbent upon the contractor to work with the local institutions in developing environmental assessments as activities are identified. A review of research activities carried out under the previous contracts proved beneficial to the environment.

B. Financial Analysis and Plan

Summary Cost Estimate and Financial Plan
(US $000)

Input	AID	Host Country	Total
1. Regional Training Workshops	185	65	250
2. Training Handbook and Post-Workshop Evaluation	30	-	30
3. Staff Development	260	70	330
4. Technical Assistance to In-Country Projects	300	140	440
5. Grants	400	150	550
6. Outreach Services and Assistance to Small Scale Industry	200	100	300
7. Technical Information Services	70	25	95
	1445	550	1995

C. Social Analysis

The intent of this project is to improve the capability of LDC Industrial Research Institutes in applying science and technology to the development needs of their countries. Possibilities for technological interventions exist throughout the societies of developing countries. The barriers to successful adaption are many, reflecting the limited technological experience at all levels of education and income in LDCs.

No single target group can be identified for an interregional project of the breadth proposed here. Emphasis has been placed on identifying and implementing technologies appropriate to local factor proportions. Specific steps are proposed to provide inputs and services to small scale industries with the premise that goods, services and employment for the poor are most likely to be positively influenced by these industries. The contractor and IRIs will be asked to include rural applications of technology wherever possible.

Twenty nine professional women have participated in training activities under the previous contracts. DRI will be urged to further expand the role of qualified women in this project.

D. Economic Analysis

Data on the economic impact of indigenous R&D expenditures in LDCs are virtually non-existent. Macro-studies on the extent and costs of technology imported by LDCs provide some indication of the level of technological activity in the industrial sector. Replies to an UNCTAD questionaire showed an average foreign exchange requirement for imported technology of 3.8 percent of export earnings in the 1969-70 time frame. Estimates of annual expenditures range from $900 million to $1.5 billion. These figures are weighted heavily by the more industrialized nations but as Mintzes 1/ points out, "... these imports can still be important in terms of a lesser developed country's levels of GDP and foreign exchange earnings. For example, relative percentages of payments for imported technology were higher for Nigeria, Colombia and Pakistan than for the more industrialized countries of Brazil and Israel during periods in the 1960s. For important primary commodity exporting, but relatively underdeveloped, countries such as Iran, Chile, Peru and Venezuela, the apparent significance of costs of imported technology with respect to these indicators is minor -- running at near or less than one percent of export earnings and correspondingly low proportions of GDP, according to UNCTAD data."

The concern over the growing foreign exchange burden for technology transfer to LDCs and over the limited capacity of many LDCs to absorb and assimilate technologies suggest that there is at least an indirect relationship between this project and the larger economic role of technology in the LDCs.

Another means of estimating the economic impact of improved IRI performance is the scale of their current operations. Differences among LDCs are important but the "average" institute can be roughly characterized as having an annual budget (circa 1975) of $1,000,000 and a staff of 100 of which one quarter are professionals. Disregarding any multiplier effects of specific technological adaptions, an increase of 10 percent in the operational effectiveness of a single IRI would represent a $100,000 benefit on average. This project will provide interactions with upwards of 40 institutes most of which will result in marginal change at best. The 6-10 institutes which will receive some combination of extended training, grants, technical assistance, and management guidance are expected to exhibit measurable improvement, however.

1/ "Facilitating Transfers of Technology to Developing Countries," Joseph Mintzes, Sept. 1975.

Part 4. Implementation Arrangements

A. Analysis of Recipeient's and AID's Administrative Arrangements

1. Recipient

Selection of host institutes for regional management training workshops are made in conjunction with AID missions who also review and advise on LDC invitees to the workshops. Some host IRIs are known at this time and the remainder will be selected as the project progresses.

Linkages between the contractor and IRIs involve substantial assistance. Formal agreements have been negotiated with PCSIR (Pakistan) and IIT (Colombia). These agreements embody expected changes in IRI activities, an indication of local support to be provided as well as the AID (contractor) areas of input. The agreement may or may not be formally approved by the local government depending upon the autonomy of the institute involved. The local Missions have been a party to the development of the linkages.

Grant awards will be based on a three step process. Informal discussions will be held with potential grantees, users and IRIs, in a number of countries. The selection of countries and institutions to be contacted will be based on recommendations by AID Missions. Formal requests for proposals will be issued to those institutions expressing interest which are judged to have adequate capabilities. Proposals will be evaluated by a selection board and awards made on criteria yet to be defined in detail but which are expected to include country specific factors. A formal grant document signed by the recipient institution will precede transfer of funds.

2. AID

The project will be managed by TA/OST and implemented by an incrementally funded contract with Denver Research Institute.

B. Implementation Plan

The implementation plan is presented as a time line milestone chart (Annex E). No AID waivers are anticipated. Monitoring will be carried out by one TA/OST staff officer. Periodic contractor reports, contractor visits and project review meetings will be employed.

C. Evaluation Arrangements

Annual, informal evaluations will be held to assess progress to date, project effectiveness, contractor performance and impediments to progress. These evaluations will be performed by a small panel of AID personnel from interested bureaus and offices chaired by TA/OST. May 1977 and May 1978 schedules have been set for the informal evaluations.

A comprehensive evaluation is planned for May, 1979. A panel will be convened with AID representation from countries with linked institutes in addition to AID/W participation. A major input to the evaluation panel will be the results of a survey by an external consultant. Baseline data will be collected by the consultant in late CY 76 or early CY 77 and will include organizational characteristics, measures of IRI interaction with the user community, and Mission and government perceptions of the IRIs. A second survey will be conducted at the beginning of CY 79 and will form the basis for an evaluation report. The contractor will be asked to prepare a self-evaluation report as an added input to the formal review.

PROJECT APPRAISAL REPORT (PAR)

1. PROJECT NO	2. PAR FOR PERIOD	3. COUNTRY	4. PAR SERIAL NO.
11-995-99111-995-988	4/1/74 TO 2/28/75	Worldwide	

5. PROJECT TITLE

Development of LDC Research Institute Effectiveness (formerly Coupling with Industry and Training Research Managers)

6. PROJECT DURATION: Began FY 73 Ends FY 79	7. DATE LATEST PROP 1/73	8. DATE LATEST PIP	9. DATE PRIOR PAR 5/21/74

10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: $ 523	b. Current FY Estimated Budget: $ 316	c. Estimated Budget to completion After Current FY: $ 1811

11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME	b. CONTRACT, PASA OR VOL. AG. NO.
Denver Research Institute (DRI)	CM/ta-C-73-20
Denver Research Institute	CM/ta-C-73-21

I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X) USAID	AID/W	HOST	B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
			Prepare Alternative Grant Award Mechanisms for Review by AID. (DRI)	5/1/75
			Establish Goals for Change in Concert with LDC institutes. (DRI)	5/1/75
			Revise Design and Scheduling of Management Workshops. (DRI)	3/15/75
			Prepare Revised PROP and PIO/T reflecting project change and combining previous projects. (TA/OST)	6/15/75

D. PROGRAMMING REQUIRES REVISED OR NEW: [X] PROP [ ] PIP [ ] PRO AG [X] PIO/T [ ] PIO C [ ] PIO P

E. DATE OF MISSION REVIEW 2/6 - 2/7/75

PROJECT MANAGER TYPED NAME, SIGNED INITIALS AND DATE: Clint Stone 6/13/75

XXXX

Development of LDC Research Institute Effectiveness - Narrative

A formal review of the two current DRI projects (Coupling With Industry and Training Research Managers) was held February 6-7, 1975. The review team included Henry Arnold, Director, TA/OST, Robert Hubbell, consultant, Charles Sewell, consultant, and Clint Stone, TA/OST project manager. One major conclusion and several secondary action items resulted from this review.

The two projects were seen by the review team as having essentially the same goal, one which differs somewhat from the individual goals as previously stated, i.e. to determine whether a single AID contractor working simultaneously with a number of LDC industrial research institut and using worldwide interactive mechanisms can be a more effective chang agent than single institute to institute relationships. The experiments with continued multi-institute workshops, competitive grant awards, and informal clearing house and information exchange activities between all participating institutions were cited as examples of the unified approac being pursued.

It was recommended that the two projects be combined in a single contract with a revised set of goals and verifiable indicators.

Review of individual project elements led to several recommendation for rescheduling and/or redesign.

1. The present ability of LDC personnel to organize and conduct international workshops for research institute managers is not adequate for successful implementation of the planned second round of workshops. Action: conduct conference leadership course and handbook preparation at DRI for two representatives from each of three LDCs prior to second workshops. Delay workshops to CY 76.

2. Establish with each linked institute a set of change goals for the institute over the next 3-5 years. Delineate the DRI/AID inputs to the planned change.

3. Develop alternative grant review and award mechanisms to better achieve industrial interaction by the LDC institutes.

4. Seek to more closely relate the project goals and activities to the local AID mission interests and priorities.

The performance of DRI was evaluated as being satisfactory. Particular note was made of the contractor's interest and willingness to be responsive to project learnings and changing LDC needs

Key Questions

1. Delays in finalizing negotiations with LDC institutes on workshop schedules, grant terms, etc. continue to slow performance. Proposed changes in project design are expected to assist this process.

2. The supply of inputs appears to be adequate. There is evidence to suggest that inputs from in-country sources are increasing. Increased LDC industrial participation is still a goal.

3. Performance to date has been judged as satisfactory.

4. The totality of resources as presently proposed is judged to be adequate to reach end of project status in FY 79. Combination of the two projects into a single activity will allow for better utilization of AID management resources.

5. The project goal has been altered as described in the narrative but the course of action remains unchanged in its essentials and is appropriate.

6. The output performance per dollar input is as planned. Schedules have been delayed by LDC response. DRI is in the process of developing an evaluation system and new verifiable indicators in the light of the revised goal. Reporting, both formal and informal, has been excellent.

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PAGE 01 HONG K 12309 01 OF 03 170511Z

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ACTION AID-50

INFO OCT-01 EA-09 EB-07 OES-05 IGA-01 H-02 L-03 SS-15
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AMEMBASSY MANILA
AMEMBASSY NEW DELHI
AMEMBASSY SEOUL
AMEMBASSY ISLAMABAD

UNCLAS SECTION 1 OF 3 HONG KONG 12309

AIDAC

E.O. 11652: N/A
SUBJECT: ASIA MISSION DIRECTORS REPORT

ASIA USAID DIRECTORS PREPARED FOLLOWING REPORT WHICH THEY PRESENTED TO AND REVIEWED WITH AA/ASIA REPS FINAL AFTERNOON MISSION DIRECTORS CONFERENCE.

Department of State TELEGRAM

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PAGE 03 HONG K 12309 03 OF 03 170922Z

B. SCIENCE AND TECHNOLOGY

WE ATTACH IMPORTANCE TO IMPROVING ARRANGEMENTS FOR THE TRANSFER OF U.S. ACHIEVEMENTS IN SCIENCE AND TECHNOLOGY TO DEVELOPING COUNTRIES, ESPECIALLY THAT BODY OF KNOWLEDGE WHICH COUDL CONTRIBUTE TO IMPROVING THE CONDITION OF THE POOR MAJORITY. IN PARTICULAR, WE BELIEVE AID SHOULD ENCOURAGE ESTABLISHMENT OF ENDURING RELATIONS BETWEEN PUBLIC AND PRIVATE SCIENTIFIC AND TECHNOLOGICAL COMMUNITIES/INSTITUTIONS IN THE UNITED STATES AND DEVELOPING COUNTRIES WHICH WOULD CONTINUE AFTER CONCESSIONAL ASSISTANCE ENDS.

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e. Other Research. We hope to further develop the relation between Denver Research Institute and Applied Scientific Research Corporation of Thailand so that the effectiveness of ASRCT can be further improved. This relationship is presently embryonic and we wish to see it grow. As one of the few areas of Mission activity supportive of PD-51, a high priority has been assigned this activity.

[illegible] in creating a viable land-use program which will serve as an example for other Thai municipalities; thus, the project can be viewed as a research/demonstration scheme aimed at the non-Bangkok urban centers in Thailand.

The Mission has been asked on several occasions to assist with local government finance and administration. A SEADAG seminar is presently being

สถาบันวิจัยวิทยาศาสตร์ประยุกต์
แห่งประเทศไทย
บางเขน พระนคร ๙
โทรศัพท์ ๐๙๑๑๒๐-๓๐

B-4

APPLIED SCIENTIFIC RESEARCH
CORPORATION OF THAILAND
BANGKHEN, BANGKOK 9
Telephone 791121-30

Cable Address : Rescorp, Bangkok

No. 0205/1976

27 January 1976

RECEIVED
INTERNATIONAL PROGRAMS
FEB 4 - 1976
DENVER RESEARCH INSTITUTE
UNIVERSITY OF DENVER

Dr. James P. Blackledge
Associate Director
Denver Research Institute
University Park
Denver, Colorado 80210
U.S.A.

Dear Dr. Blackledge,

Thank you for your letter of 13 January 1976 and particularly for your continued interest to strengthen the institutional linkage between DRI and ASRCT.

We have high hopes that ASRCT will now advance more progressively towards achieving its goals. With new Board and Governor we have revised and established a more clear cut policy and plan for implementation. Under the new policy ASRCT will be streamlined for its main function of applied research. Other related activities will be limited initially, to be expanded later as resources and national recognition of the ASRCT's role grow. Under this concept, technological research is considered as a major function and an integrated part of the multi-disciplinary operation of ASRCT.

Since you have not yet met Dr. Black after his departure from Bangkok, I have the pleasure to let you know that ASRCT has recently been authorized to assume the role of national co-ordinator for applied research in Thailand. We are doing everything possible to finalize the plan of operation by early March 1976.

I have asked the Governor about your proposed visit to ASRCT 10-17 March and he would be very pleased to meet you for discussion on ASRCT-DRI linkage on this occasion.

May I take this opportunity to wish you happiness and success for the New Year.

With kindest regards,

Yours sincerely,

Kasem Balajiva.

(Dr. Kasem Balajiva)

AIRGRAM B-5 DEPARTMENT OF STATE

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DATE SENT: February 1976

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FROM - ISLAMABAD
E.O. 11652: N/A
SUBJECT - Denver Research Institute Contract
AID CM-TA-C-73-20
REFERENCE - (A) STATE 012415, (B) STATE 006080

Enclosed find two copies of the Pakistan Council of Scientific and Industrial Research Institute (PCSIR) and Denver Research Institute (DRI) Direct Linkage Agreement signed by Dr. M.A. Khan, Chairman, PCSIR. Please send both copies to Dr. James P. Blackledge at DRI for his signature. He should sign both copies, retain one original and return the other original to TA/OST. Additional copies can then be made in TA/OST for your files and the signed original returned to USAID/Pakistan for transmittal to PCSIR.

The Mission regrets that it has taken so long to get the PCSIR/DRI Agreement signed. However, we are pleased to report that the general goals of the linkage are being achieved. The strengthening of the interaction between PCSIR and the industrial and commercial sectors of Pakistan has improved greatly during the time the two institutes have been involved in joint research activities, training programs, seminars and workshops. Mission personnel who attended a recent workshop jointly conducted by PCSIR and DRI on "Research and Development, Planning and Management" reported enthusiastic attendance by representative of the industrial and commercial sectors. Also present were members of the Pakistan Institute of Management and National Institute of Public Administration.

The collaborative research projects, technical information exchange and training of PCSIR personnel have been equally successful.

OTHER AGENCY

PAGE 1 OF PAGES 2

DRAFTED BY	OFFICE	PHONE NO.	DATE	APPROVED BY
M. Ali/JDMurray/aq	PSD	311	2/24/76	Charles L. Matthias, AD/PS

AID AND OTHER CLEARANCES

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STATION or appropriate OFFICE (Do not type below this line)

DATE | SIGNATURE

Of special significance of this collaborative agreement is the development of a better lines of communication between the institutes performing the research development activities and the small medium sized industries which can apply the appropriate technological developments in productive operations.

Now that the basic agreement has been signed we see the possibility of considerably increased activity between the two institutes which will further assist the PCSIR in developing the capability to secure research contracts which reflect the needs of the industrial community with which they work.

Attachments: as stated sent OST, 3.2
(under separate cover)

BYROADE

Señor
James Miller
Denver Ressearch Institute
E. S. M.

Apreciado señor Miller:

Quiero manifestarle mi sincera gratitud y el reconocimiento de todos los industriales de Colombia por los valiosísimos aportes que en materia de tecnología, proporcionó el D.R.I. a través de sus excelentes expertos y conferenciantes quienes participaron decisiva y eficazmente en el Primer Seminario de Envases y Empaques.

Estas contribuciones comprometen no solo nuestros agradecimientos, sino que también movilizan el interés de la ANDI para seguir colaborando estrechamente con el Denver - - Ressearch Institute y con el I.I.T. de Colombia; aspectos sobre los cuales espero tener la oportunidad de conversar detenidamente con usted.

Reciba señor Miller, con mis felicitaciones mi gratitud y amistad respetuosa.

Cordialmente,

Carlos Escobar Pizza
Vicepresidente Industrial

nmc/20-01

Translation

Mr. James Miller
Denver Research Institute

Dear Mr. Miller:

I would like to express my sincere gratitude and the acknowledgement of all the Colombian manufacturers for DRI's very valuable contribution in technological material, provided through your excellent experts and lecturers who participated conclusively and efficaciously in the First Container and Packaging Seminar.

These contributions commit not only our gratitude, but also mobilize ANDI's interest to continue collaborating closer with DRI and IIT in Colombia, aspects of which I hope to have the opportunity to talk with you carefully.

Receive, Mr. Miller, my congratulations, my gratitude and my respectful friendship.

Cordially,

Carlos Escobar Pizza
Vice-President

UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
AMERICAN EMBASSY
JAKARTA, INDONESIA

February 12, 1976

Mr. Ronald P. Black
Office of International Programs
University of Denver
Denver Research Institute
University Park
Denver, Colorado 80210

Dear Ron,

Thank you for your letter of February 4; happy to know that you have gotten yourself back to the States in good order despite Bangkok fires! I have also received those slips verifying your rupiah expenditure, and thank you for following up on that detail, too.

We would certainly have no objections to a no-cost time extension to your contract with AID/W. In fact, we're pleased to see that some of the participants would like to continue their work with you. Had a nice luncheon today with Miss Achmad and Mrs. Luhulima, among others, and they had some quite complimentary things to say about the assistance they had received from DRI for the Bandung workshop. They clearly thought that all the effort was worthwhile, and report favorable "feedback" from the participants. I'm pleased to be able to pass along the good news to you.

Continued good wishes for your work there at DRI.

Sincerely yours,

Louis H. Kuhn
Assistant Program Officer

LHK:jm

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INTERNATIONAL PROGRAMS
FEB 20 1976
DENVER RESEARCH INSTITUTE
UNIVERSITY OF DENVER

Department of State **TELEGRAM**

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ACTION AID-31

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E.O. 11552: N/A
SUBJ: TDY OF WILLIAM H. LITTLEWOOD (TA/OST)

REF: (A) JAKARTA 0615; (B) JAKARTA 2716; (C) JAKARTA 12975; (D) JAKARTA 15277; (E) STATE 300782

1. SUBJECT TDY COMPLETED WITH LITTLEWOOD DEPARTURE FEBRUARY 28.

2. THROUGH FULL SCHEDULE MEETINGS WITH BROAD RANGE GOI OFFICIALS AND SCIENTIFIC ORGANIZATIONS, LITTLEWOOD HAD OPPORTUNITY INVESTIGATE MOST ISSUES LISTED SCOPE OF WORK REFTEL A, AND BROADENED MISSION'S UNDERSTANDING INDONESIA S&T DEVELOPMENT PRIORITIES.

3. PREPARATION TDY ITINERARY BY OFFICE STATE MINISTER FOR RESEARCH (PROF. DR. SUMITRO), OPENING AND CLOSING SESSIONS WITH MINISTER HIMSELF, AND FULL PARTICIPATION OF INDONESIAN INSTITUTE OF SCIENCES (LIPI) SERVE DEMONSTRATE CONSIDERABLE ATTENTION GOI GAVE TO VISIT. SESSIONS WERE WELL ATTENDED BY GOI OFFICIALS (GENERALLY DIRECTORS GENERAL, DIRECTORS, OR CHAIRMEN, AND THEIR STAFFS).

4. MEETINGS OF LITTLEWOOD (ACCOMPANIED BY MISSION OFFICER) WITH INDONESIAN GENERALLY FOCUSED ON THREE MAIN TOPICS: (A) OVERVIEW INDONESIAN INSTITUTION VISITED, TO INCLUDE ITS PERCEIVED ASSISTANCE NEEDS AND PRIORITIES; (B) ROLE TA/OST IN APPLYING U.S. SCIENCE AND TECHNOLOGY TO PROBLEMS AND

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PAGE 02 JAKART 03257 113409Z

OPPORTUNITIES IN DEVELOPING COUNTRIES (OFTEN EXPLICIT EXAMPLES AND DISCUSSION APPLIED TO INDONESIAN CONCERNS), AND (D) POSSIBLE USE OF RECENTLY AUTHORIZED $5 MILLION AID TECHNICAL ASSISTANCE AND CONSULTANTS LOAN (TO BE ADMINISTERD BY NATIONAL DEVELOPMENT PLANNING AGENCY BAPPENAS), AS POTENTIAL FUNDING SOURCE FOR PROVIDING U.S. PROFESSIONAL TECHNICAL ASSISTANCE TO GOI.

5. OVERALL CONCLUSION WAS THAT THERE EXISTS SIGNIFICANT POTENTIAL FOR U.S. S&T ASSISTANCE TO INDONESIA; THAT EDUCATION/HUMAN RESOURCES DEVELOPMENT IS GREATEST NEED, CUTTING ACROSS ALL INDONESIAN S&T SECTORS; AND THAT PERHAPS MOST SIGNIFICANT OPPORTUNITIES ARE IN (1) AQUATIC RESOURCES, INCLUDING BIOLOGICAL RESOURCES, MARINE GEOLOGY, AND GEOPHYSICS, (2) EVALUATION OTHER NATURAL RESOURCES (SPECIFICALLY CONTINUATION OF HIGHLY SUCCESSFUL GEOLOGICAL SURVEY OF INDONESIA (GSI) - USGS COLLABORATIVE PROGRAM OF 1969-74), (3) FOOD PROCESSING AND QUALITY CONTROL, AND (4) ESTABLISHEMENT OF LONG-TERM R&D MANAGEMENT TRAINING RELATIONSHIP BETWEEN LIPI AND DENVER RESEARCH INSTITUTE.

6. NATIONAL ACADEMIES ISSUES RAISED IN REFTEL E ARE REPORTED REF B.

7. BROADENING COUNTRY-FINANCED TECHNICAL ASSISTANCE WAS DISCUSSED WITH DG FOR MONETARY AFFAIRS IN MINISTRY OF FINANCE, ALONG WITH HIS DIRECTOR FOR STATE-OWNED ENTERPRISES. MISSION HAS CONTINUED DISCUSS THIS TOPIC WITH STATE-OWNED ENTERPRISES, HOWEVER, GENERAL ATMOSPHERE SURROUNDING THIS SUBJECT REMAIN AS DISCUSSED REFTEL C. ONLY FORESEEABLE SELF-FINANCED TECHNICAL ASSISTANCE PROSPECT REMAINS INDUSTRY AND CENTRAL RESEARCH INSTITUTE PROJECT BEING PURSUED BY DR.-ING. B. J. HABIBIE (REFTEL D). WILL REPORT ANY FOLLOW-UP BY HABIBIE TO AID/W OFFERS TO FACILITATE HIS ACQUISITION US SERVICES.

8. MISSION CURRENTLY COMPLETING MEMCONS LITTLEWOOD CALLS ON GOI OFFICIALS. WILL POUCH.
NEWSOM

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ANNEX C

GRANT AWARDS (1974-75)*

COUNTRY	IRI	AMOUNT	TITLE
Central America	ICAITI	$35,000	Continuous Dry Process for Free Gossypol Reduction in Cottonseed Meal.
Thailand	ASRCT	$27,000	Production of Paint Oils from Rubber Seed.
Korea	KIST	$44,000	Production of a Nutritious Low-Cost Composite Flour Using Local Grains or Tuber.
Colombia	IIT	$30,000	Recovery of Marketable Acids from Spent Caustic Disposal Streams in a Petroleum Refinery.
Nigeria	FIIR	$15,500	Production of Malt from Nigerian Cereal Grains.

* Awards made on the basis of technical merit, potential for utilization, and adequacy of the project plan.

AID 10..-28 (1-72)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Date of Project
From FY 76 to FY 78
Total U.S. Funding 1,445,000
Date Prepared: 3/31/76

Project Title & Number: LDC Industrial Institute Effectiveness - 931-11-995-097

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes: Strengthen the capabilities of LDC industrial service institutions to assist local industries in selecting, adapting, and using technologies suited to their circumstances, with special attention to support for small scale industries.	**Measures of Goal Achievement:** Level of local awareness and utilization of IRI services. Practicality and cost of IRI products/services. Fraction of IRI resources devoted to local assistance.	Project Evaluation Survey Analysis of services rendered IRI annual budgets	**Assumptions for achieving goal targets:** LDCs are interested in upgrading S&T institutions. Some fraction of senior S&T staff are amenable to change. External assistance can induce change.
Project Purpose: Assist selected LDC industrial research institutions in improving organizational management, marketing and technical skills toward increased participation in country development. To disseminate the results to IRIs worldwide.	**Conditions that will indicate purpose has been achieved: End of project status.** LDC capability for staff training. Operational IRI systems to interface with user community. Demonstrated IRI performance on development problems. Increased government and industry commitment to utilization of IRI resources.	Number and quality of IRI training courses. Organization and staffing of IRIs. Grant performance evaluation. Volume of funded, problem specific R&D.	**Assumptions for achieving purpose:** IRIs can be motivated to address user needs. Users will recognize role of appropriate technologies. Assisted IRIs will adapt and adopt U.S. techniques. Cultural and political differences will not seriously limit utility of these techniques.
Outputs: IRI personnel trained in marketing, project selection, techno-economic analysis and project management. Handbooks and training materials for use by LDC Institutes. Established linkages with LDC institutes. Appropriate technologies applied to a set of local problems.	**Magnitude of Outputs:** 95 person months of IRI training. 1 course syllabus. 2-3 linkages. Approx. 25 individual projects.	Contractor Reports	**Assumptions for achieving outputs:**
Inputs: AID funding. Host country funding and in kind inputs. Contractor services.	**Implementation Target (Type and Quantity)** $1,445,000 550,000 174 person months.	PIO/T Contractor Reports	**Assumptions for providing inputs:**

LDC INDUSTRIAL INSTITUTE EFFECTIVENESS
PROJECTED EXPENDITURES BY QUARTER
(U.S. $000)

Quarter	1	2	3	4	5	6	7	8	9	10	11	12
Regional workshops and handbook	15	30	30	35	15	30	30	30	15			
Grant awards and grant management	5	20	20	220	20	20	20	10	5			
Linkages, outreach, technical assistance, information serive and training	60	60	60	60	90	90	90	90	75	75	75	50
Quarterly Total	80	110	110	315	125	140	140	130	95	75	75	50
Cumulative Total	80	190	300	615	740	880	1020	1150	1245	1320	1395	1445

OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6

File

UNITED STATES GOVERNMENT

Memorandum

TO : Distribution

DATE: April 23, 1976

FROM : TA/PPU, Carl Fritz

SUBJECT: Addenda to Project Paper - LDC Industrial Institute Effectiveness

The April 20 R&DC review of the subject PP raised four points for which amplification or added emphasis were suggested. The following paragraphs are to be incorporated in the project paper as noted.

Page 9, 4.a. add:

Workshops and training courses will include perspectives on labor intensive technologies, assistance techniques for small scale industry and small producer economics.

Page 10, 5.d. add:

The contractor will make every effort possible to find and implement grant award mechanisms which will provide IRI services to rural industries and small entrepreneurs. Cooperatives, industrial estates and small industry associations are possible points of impingement.

The regional bureaus will be consulted on the selection of candidate countries for grant interventions.

Page 11, footnote to 5.e.2).

* The target group(s) will be identified through surveys of small industries, an assessment of priority needs and an analysis of IRI response capabilities. A service to provide problem definition, technical information, training and technical assistance will be organized at linked IRIs using, wherever possible, existing elements of the institute. The contractor will assist the IRIs in developing a cohesive and operational service with appropriate fee scales and ongoing evaluation methods.

Page 14 - replace last paragraph:

Attendance at regional workshops and institute training activities conducted under the previous contracts included twenty nine professional women from developing countries. These women, serving as research scientists and middle level managers in the IRIs, were provided training in management techniques, project design and proposal preparation as previously discussed. The contractor will be urged to further expand the participation of

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Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

professional women in this project with emphasis on the special problems of women in achieving professional recognition and advancement.

The surveys of small industries mentioned in 5.e.2) above will endeavor to include information gathering on the role of women in the industries studied. To the extent possible and practical, prioritization of small industry problems and the assistance provided will take account of the need to advance the role of women entrepreneurs and women employees.

Please phone your clearance of the above PP changes to TA/OST, Clint Stone, x 27971 as soon as possible so that we may proceed with the project approval process.

Distribution:

J.J. Dalton, NE/TECH
G.E. Varrati, A/AID/WID
R.L. Goodrich, ASIA/TR
W.M. Feldman, LA/DR
J. Shannon, PPC/DPRE