

PROJECT APPRAISAL REPORT (PAR)

REPORT U-445
9310157-3
PO-116-605-F1
20p.

PAGE 1

1. PROJECT NO. 931-11-120-159	2. PAR FOR PERIOD: May 1974 TO Nov. 1975	3. COUNTRY TA Bureau	4. PAR SERIAL NO.
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5. PROJECT TITLE
Integrated Natural Resources Planning and Management of Arid and Semi-Arid Lands (K 8A #7)

6. PROJECT DURATION: Began FY <u>74</u> Ends FY <u>79</u>	7. DATE LATEST PROP -----	8. DATE LATEST PIP -----	9. DATE PRIOR PAR None
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10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: \$1,045,000	b. Current FY Estimated Budget: \$116,000	c. Estimated Budget to completion After Current FY: \$
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11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME University of Arizona	b. CONTRACT, PASA OR VOL. AG. NO. AID/TA-G-1111
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I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X)		B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
USAID	AID/W		
		Grantee	
	X	1. University to encourage a more effective "interdisciplinary" approach to grant management and implementation by seeking more participation by social sciences faculty.	June '76
	X	2. University to prepare a comprehensive work plan for magnitude and scheduling of outputs. Additional recommendations on specific outputs:	June '76
	X	(a) Major institutional linkages: University should attempt to direct its efforts in Africa as soon as possible to the Sahelian countries, drawing on the experience gained in the Northeast section of Ghana.	Dec. '77
	X	(b) Arid Land Information System: Separate funding for this activity to be requested from AID/W for FY '77 and other donors.	June '76
X	X	Talent bank to be continued but not computerized. Additional information to be circulated to Missions and Regional Bureaus on information system and how to utilize it.	June '76
X	X	(c) Advisory Services: Information on availability of "prepaid" advisory services available under the grant to be prepared and circulated to Regional Bureaus and Missions.	June '76

12. REVISIONS REQUIRED

REVISED OR NEW: PROP PIP PRO AG PIOP/T PIOP/C PIOP/P

PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE
MKux *[Signature]* 4/6/1976

REGIONAL DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE
HAArno *[Signature]* 4/6/1976

E. DATE OF MISSION REVIEW

Report on Eighteen Month Design Review of 211(d)
Grant to the University of Arizona for Integrated
Natural Resource Management of Arid and Semi-Arid Lands

November 3-4, 1975

A design review team formed by the sponsoring technical office, TA/OST, and including representatives of TA/PPU, TA/AGR, AFR/DS and AFR/CWA, visited the University of Arizona on November 3-4, 1975. Office representation was requested on the basis of their interest in the subject matter and in the geographic area in which the grantee has established initial contacts. Members of the review team were:

Molly Kux, TA/OST, Project Manager
Thomas L. Elliot, TA/PPU, Grants Coordinator
Dillard Gates, TA/AGR, Project Manager, 211(d) Grant to University
of Arizona in Watershed Management
Henry Gruppe, Deputy Director, AFR/DS
Joan Coe, AFR/CWA, Ghana Desk Officer

The review team met for approximately one and one-half days with the Director of the grant program, Dr. Jack Johnson, and members of faculty committees set up to administer the grant at the University of Arizona campus. The team met throughout the first day with project chairmen individually to discuss the various activities already started and those in the planning stages, and in addition, attended one of the regular monthly Management Committee luncheon meetings. On the second day, the team met with the Steering Committee specifically to review the grant design, the grant purpose, the objectives and outputs and the basic critical assumptions. A summary of the actions recommended as a result of the review are contained in the Project Appraisal Report (PAR) face sheet. The following is a more detailed discussion of the overall review.

I. Grant Purpose and Approach and Methodology of Grantee

The project purpose, as stated in the grant document is: "... to assist the University of Arizona to establish an institutional response capability in the area of multiple-use planning and management of natural resources in arid and semi-arid regions of developing countries. The program will focus on concepts and technologies for inventorying, assessing, and managing the resource base in a manner that optimizes overall benefits over the long term. Special importance will be attached to the socio-economic, institutional, legal and public policy aspects of resource management," and similarly, to contribute to "upgrading LDC capabilities" in the same areas.

The grant purpose was reviewed and still found to be valid, but it was suggested that the University include and discuss in its annual reports the long range goal and progress towards its achievement. In addition, in analyzing the University's approach and methodology for achieving the grant purpose, it was felt there was a need to insure a "multidisciplinary" approach to grant management and implementation of activities under the grant, particularly by encouraging participation of social scientists on the Steering Committee and seeking their greater involvement in the design and implementation of specific projects.

The need to achieve a more comprehensive interdisciplinary approach and particularly the difficulty in obtaining active participation by representatives of many of the social science disciplines was a subject which recurred throughout the one and one-half day discussions. The concern reflected not only on the part of the AID review team but also on the part of grant director and members of various University grant committees. The methodology developed by the University to achieve multidisciplinary participation has been to establish a grant Management Committee. The Committee is composed of eleven representatives from a wide range of University departments. Committee members were appointed by a Policy Review Board of deans and administrators which oversees the grant program and approves major budget decisions. The committee meets monthly and votes on all major decisions affecting the grant activities. A smaller Steering Committee also has been established, with membership decided by Management Committee vote. The Steering Committee screens proposals and follows-up on Management Committee decisions. The Steering Committee though small, has considerable influence on the grant program, but so far has not included a social-scientist member. Even though attempts have been made to include and interest social scientists in all aspects of grant activities, and some have been successful, the "hard" scientists have been much more active both in grant management and project initiation. Both University representatives and AID review team members agreed that there was a need to more actively involve social scientists in grant activities and somehow to assure their representation on the important Steering Committee.

Despite this one difficulty, the basic institutional structure seems to operate extremely well in its ability to maintain adherence to a defined program while at the same time allowing for flexibility in encouraging proposals for new or alternative activities. The Management Committee meeting which the review team attended was quite remarkable in its strict adherence to a time schedule that permitted completion of all scheduled business and still allowing adequate time for discussion of well prepared reports.

II. Review of Objectives/Outputs and Workplan for Magnitude and Scheduling

The grant has three overall objectives and five specific outputs in support of the objectives. The objectives are:

1. Multiple-use management of natural resources;
2. Assessment and mitigation of undesirable secondary environmental effects associated with natural resources development projects;
3. Application of new technologies to problems of resource surveys, assessment and monitoring.

The five specific outputs are:

1. Centralized information system on arid and semi-arid lands;
2. Institutional linkages;
3. Advisory capability;
4. Educational and training capability; and
5. Knowledge and research capability.

The objectives and outputs of the grant were reviewed and still found to be valid.

A description of the accomplishments and progress in each of the five output areas during the first year is contained in the University's first Annual Report (pp. 14-22).^{*} The AID review team felt confident that the University was well along in implementation of the outputs and that the initial emphasis which had been placed largely on establishing the information system, setting up the weekly seminar series to increase faculty awareness, and the establishment of the first major institutional linkage in Ghana, was appropriate to the achievement of grant objectives.

The University and the AID review team made several recommendations in reference to specific outputs.

1. Information System: the University recommended that supplemental funding should be obtained from AID and possibly also from other donors to support the information activity. The University had placed priority during the first year of the grant, on the establishment of the information system; almost 45 per cent of the grant's first-year expenditures were spent in getting this activity well established and underway. Continued support of the same magnitude would seriously restrict other major grant activities and the University has concluded that the Information System is sufficiently important to justify outside funding. This possibility was envisaged for a number of projects initiated under the grant when the grant was designed. The University will submit a request to AID for funding under a GTS contract beginning on FY 77. The AID review team endorsed this approach, and, in addition, recommended that (a) the University

* Copies of the First Annual Report can be obtained from TA/OST.

seek additional sources of financial support, particularly from the United Nations Environment Programme (UNEP) which already has indicated considerable interest in Arizona's arid/semi-arid lands program, and (b) that the University explore the possibility of charging a user's fee. It was further recommended that the Information System be made more visible to AID/W and Missions and that additional information be prepared and circulated on how to utilize the service.

2. Major Institutional Linkages: the review team recommended the establishment of major institutional linkages, particularly in Africa where the University selected its first study area. The one major linkage established in the first grant year was with the Council for Scientific and Industrial Research (CSIR) in Ghana, and a number of other project activities have been proposed for Ghana by the University since then. TA/OST and AFR/CWA both showed serious concern prior to and during the review team's visit about the high proportion of grant resources, both financial and human, that were being expended in Ghana. The review team further expressed its concern at overtaxing Ghanaian capacity by involving them in too many activities at one time. A considerable amount of time was set aside during the review for discussions of specific projects proposed for Ghana (see separate report by AFR/CWA). While it was recognized that the interest and cooperation of Ghanaian institutions has been of great value to the University in making it possible to obtain practical overseas LDC experience, the review team felt that every effort should be made to shift emphasis as quickly as possible to countries where more arid conditions prevail, particularly the Sahelian countries. The University explained that it plans to utilize experience gained from the research project currently underway in north-east Ghana on methods of drought control. Here, conditions are similar to the Sahel and current research results will serve as a basis for future activities in the Sahel.

The University stated its hesitancy about working in French-speaking countries without first having proficiency in French. As a result, French language courses are scheduled to begin in January 1976. The review team urged the University to direct more of its activities toward the Sahel even if the use of interpreters and translators were necessary.

The University voted Peru its second major country linkage during the visit of the review team, thereby broadening the University's geographic area of operations. This decision was made on the basis of the mutual interest of the University and the AID Mission in Lima. Confirmed action of the mutual interest was made during a visit of Management Committee members to Peru in September 1975. Discussions were held at that time with Mission representatives and members of Peruvian institutions. A grant committee was formed to work out future Peruvian programs. The AID Mission indicated that one particular area of interest for future activities might be in water-resources management.

3. Advisory Services: the AID review team recommended that the regional bureaus in AID/W and the overseas Missions should be better informed about the availability of advisory services under the grant,

"prepaid" and otherwise. TA/OST and the University were requested to follow-up on the preparation and circulation of appropriate information.

In reference to the magnitude and scheduling of target outputs, the AID review team encountered some difficulty in evaluating future programming due to the University's lack of written work plans, and the emphasis being placed by the University on various aspects of the grant program. Even though the University had estimated expenditures in each category of output in the original grant document, the estimates were revised in the first annual report, and the only activities projected in detail were for the second year. Therefore, it was difficult to relate each activity to the overall program concept, and grant objectives and to evaluate the planning for total resource expenditures over the five year period. It was recommended that the University prepare a comprehensive workplan for the magnitude and scheduling of outputs. The University already was aware of this deficiency and had enlisted the support of a systems analyst to work with the grant director and the grant committees to formulate a rational program for the next three and one-half years. An annual planning session was scheduled for December 1975 to plan and relate all activities to the overall grant purpose and to prepare a budget and program for the balance of the grant.

III. Review of Critical Assumptions and Baseline Data

The seven critical assumptions as outlined in the annual report were carefully reviewed and neither the AID review team nor the University found it necessary to recommend changes. The University, however, pointed out that in relation to information dissemination Assumption No. 4 states that "Additional funding outside this Grant can be found to support both foreign and U.S. students, as well as specialized training program, information dissemination and institutional linkages, particularly in the latter stages of the Program and beyond year five." The University review of the critical assumptions is contained in pages 11-13 of the Annual Report.

The baseline data were not reviewed in detail by the AID team because the information provided by the University seemed adequate and further, there was no means to verify it.

IV. Conclusions

The entire AID review team was positively impressed with the work of the University of Arizona in carrying out the purposes of the grant. The enthusiasm and interest in grant activities shown by a large number of university faculty was impressive and encouraging. The team was particularly pleased that the project Director kept a tight rein on project funds, particularly at a time when grant expenditures were slightly less than the amount budgeted for the period under review. Further, several of the activities proposed, in addition to being relevant to the purpose of the grant, were especially helpful to the needs of Ghana and the CSIR.

AFR/CWA and CSIR have both expressed appreciation for the opportunities the linkage with the University of Arizona has provided and have been satisfied with the activities undertaken thus far.

More frequent, direct contact between TA/OST and the University would be useful, particularly because the project manager has only recently been involved in this grant. The Director of the grant program at the end of the review expressed his view that the communication the review exercise provided between AID and the University was extremely useful and that a similar type of exchange should be arranged on an annual basis.

Attachment:
Project Design Summary - Logical Framework

TA/OST:MKux
3/11/76 Ext. 22419

211(d) PROJECT DESIGN DETAIL
LOGICAL FRAMEWORK

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: May 1974

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>(Include KPA or equivalent statement of sector or sub-sector goal.)</p> <p>Improved LDC capabilities for assessing the location and nature of their natural resources and for determining how these resources can best be developed. . . including faster, cheaper, and more effective techniques for identifying and appraising natural resources, as well as <u>improved techniques for managing natural resource base over the long term, such as integrated land use planning, conservation of renewable resources, and environmental protection.</u> (PD-51, issued 1/12/73)</p>	<p>Measures of Goal Achievement:</p>		<p>Assumptions for achieving goal target...</p>

211 (d) PROJECT DESIGN DETAIL
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: May 1974

Project Title & Number: _____

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p>To mobilize and focus an institutional response capability at the University of Arizona on multi-use planning and management of arid and semi-arid lands and associated natural resources in developing countries.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>a) University of Arizona recognized as a center of excellence with U.S. for information, expertise, and applied research and development related to integrated resource management in LDCs.</p> <p>b) Absorption of activity into academic mainstream of University of Arizona.</p> <p>c) Continuous and significant involvement on LDC problems.</p> <p>d) Adequate financing available for sustaining program.</p> <p>e) Upgraded University and U.S. capability to contribute effectively to resource management programs in, or focused on, the LDCs.</p>	<p>a) Peer evaluation by other U.S. universities and resource management agencies, other donors and LDCs.</p> <p>b) Annual report, on-site observation.</p> <p>c) Utilization record with LDCs, AID, and other donors.</p> <p>d) Annual report, University records and budget citing other sources of funding attracted to the program.</p> <p>e) Comparison against year 1 baseline analysis prepared by the University</p>	<p>Assumptions for achieving purpose:</p> <ul style="list-style-type: none"> . That outputs will result in viable institutional capacity. . Creation of capacity will be accompanied by gradual increase in utilization of same. . Utilization will provide at least partial financing of necessary core staff and support. . U.S. expertise to deal with semi-arid land problems in the LDCs will continue to be in demand.

211(d) PROJECT DESIGN DETAIL
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding: _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <p><u>OUTPUT No. 1</u> Capability and system for collecting, evaluating, inventoring and disseminating information covering LDC resource management problems, and U.S. and other expertise and knowledge which can be brought to bear on these problems.</p> <p><u>OUTPUT No. 2</u> Education and training program specifically addressed to problems of LDCs.</p>	<p>Magnitude of Outputs:</p> <p><u>OUTPUT No. 1</u> a) Inventory of sources of individual and institutional talent within the U.S. and abroad to be established by end of 2nd grant year. b) Bibliographic and information of Office of Arid Land Studies expanded during years 1 & 2 to enhance international coverage. c) Current dissemination system upgraded in year 1 to increase international exchanges, and this will be a continuous process. International newsletter distributed starting in year 2.</p> <p><u>OUTPUT No. 2</u> a) Curriculum evaluated during year 1. New integrative courses initiated in year 2 along with introduction of any new speciality courses required. b) Special faculty seminar in year 1; faculty-student series in year 2; minimum of 1 overseas workshop in years 2-5. c) Capacity to handle LDC & US graduate student in new non-degree program by end of</p>	<p><u>OUTPUT No. 1</u> a) On-site observation and annual report. b) On-site observation and annual report, and baseline comparison. c) On-site observation, cross-checking with network participants, and baseline comparison.</p> <p><u>OUTPUT No. 2</u> a) On-site observation and annual report. b) On-site observation, annual report, AID participation. c) Annual report and AID evaluation.</p>	<p>Assumptions for achieving outputs:</p> <p><u>OUTPUT No. 1</u> National institutions (LDCs and others) and donor agencies are willing and able to provide inputs and utilize information services.</p> <p><u>OUTPUT No. 2</u> Demand (both U.S. and LDC) will exist. AID and other donors will assist in locating and financing LDC student</p>

211(d) PROJECT DESIGN SUMMARY
PROJECT NUMBER: 101

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding: _____
Est. Projects: _____

Project Title & Number: _____

NARRATIVE SUMMARY

Output:

OUTPUT No. 3

Expanded adaptive research capability on policies, methodologies, and technologies for resource assessment and management in semi-arid regions of the LDCs, with adequate emphasis on socio-political-administrative factor-

OUTPUT No. 3.

- (a) initiation of at least 2 research projects per year after first year; with at least one in cooperation with LDC institution.
- (b) continual identification and assessment of emerging new techniques for resource management, and initiation of series of state-of-the-art reports in year 2. (cross-reference to Output #1).

OUTPUT No. 3

On-site observation and annual report. Review of size & quality of research program and research results. Actual applications to LDC problems. University publications and scientific papers on subject.

OUTPUT No. 3

- * Adequate success in achieving Output No. 1.
- * Effective help from AID and other U.S. agencies in conducting research, identifying needs or opportunities, etc.
- * LDC institution can be found which are interested in and capable of undertaking cooperative research with the University in this field.

211(c) PROJECT DESIGN D E T A I L
LOGICAL FRAMEWORK

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <p><u>OUTPUT No. 4</u> Capability to provide consultant and advisory services to LDCs, AID and other donors.</p> <p><u>OUTPUT No. 5</u> A system or network of worldwide linkages with resource management institutions.</p>	<p>Magnitude of Outputs:</p> <p><u>OUTPUT No. 4</u> a) increasing number of faculty and grad students participating in program. b) increasing number of grantee representatives directly involved in advising donor agencies and LDCs. c) pre-paid advisory services are drawn upon and stimulate increasing demand.</p> <p><u>OUTPUT No. 5</u> a) Linkages established or strengthened with at least 5 LDC institutions during first year, each one representing a different type of ecosystem, set of resource management problems or distinct resource management function. In year 2, three collaborative programs will be operating. b) Linkages established with Dept. of Interior agencies, UNEP, FAO, OAS, UNR&TD along with Cornell, MIT and Georgia Tech. in year 1. c) Joint research with LDCs on development and application of new and improved techniques for resource inventory and management (cross-reference Output 3).</p>	<p><u>OUTPUT No. 4</u> a) Annual report, baseline comparison. b) Annual report and actual utilization of capacities--plus peer review.</p> <p><u>OUTPUT No. 5</u> a) Annual report and on-site observation by AID/W and USAID staff. b) Joint projects; information exchange; joint sponsorship/participation in workshops, etc. Peer recognition of University of Arizona as single-source of information on U.S. expertise and state-of-the-art. c) Annual report, USAID/Regional Bureau appraisal.</p>	<p>Assumptions for achieving outputs:</p> <p><u>OUTPUT No. 4</u> a) Continuing faculty interest involvement. b) Demand for these response capabilities will exist.</p> <p><u>OUTPUT No. 5</u> a) AID assistance and support will be adequate to stimulate linkages. b) LDC interest and capacity to cooperate exist. c) Network will provide an effective basis for creation and utilization of institutional capacity encompassed in Outputs Nos. 1 to 4. d) Other U.S. institutions will cooperate in a program coordinated by University of Arizona e) Financial resources and program design adequately effectively link institutions in a true network.</p>

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Inputs: (activities or tasks)</p> <ol style="list-style-type: none"> (1) Course Development (Univ. of Arizona. (2) Research (in U.S. and abroad) (3) Faculty Seminars and Workshops. (4) Teaching and Training. (5) Information collection and analysis. (6) Consultation with U.S., UN & LDC resource managers and planners. (7) Application and upgrading of knowledge and perspective through advisory services. (8) University of Arizona base support. 	<p>Implementation: Target (Type, Date, Quantity)</p> <ol style="list-style-type: none"> 1) Curriculum analyzed year 1; new courses introduced starting in year 2. 2) Initiation of research projects in year 2, minimum of two each year with 1 in co-operation with LDC. 3) Faculty seminar in year 1; faculty-student seminars beginning year 2. 4) Continual input of international/LDC information in existing and new course. 5) Continual collection and analysis of information on LDC resource management problems, and the role of science and technology. 6) Continuous interaction, through linkages began in year 1. At least 5 broad-based Univ.-LDC linkages will be established. 7) Pre-paid advisory services provided under grant, and AID/TA/OST will seek U. of Arizona involvement under other funding mechanisms. 8) U. of Arizona to contribute -Mgmt. Committee salaries-\$75,000; equipment, facilities & overhead for existing programs & activities; start-up & organization costs, including overseas staff travel; sustained non-AID funding of activity base on which AID is building 	<p>1-8 - Annual report, on-site observation and evaluation, AID participation as <u>ex-officio</u> member of Executive Committee, and comparison of progress against baseline developed during year 1.</p>	<p>Assumptions for providing base:</p> <ol style="list-style-type: none"> 1) Present base of University programs will be maintained with non-AID funds 2) Inter-departmental cooperation and participation can be sustained. 3) LDC interest in participating can be generated and sustained 4) Program will become self-sustaining by end of year 5 with University, state and other donor funds predominating-based on University effort beginning in year 1 to attract supplemental funding.

BEST AVAILABLE COPY

LOCAL FRAMEWORK

Integrated Natural Resources Planning and Management

Project Title & Number: FOR Arid and Semi-Arid Lands (University of Arizona)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Improved LDC capabilities for assessing best use of resources-- including more effective techniques for identifying and appraising natural resources, improved management techniques, integrated land use planning, and environmental protection (PD-51).</p>	<p>Measures of Goal Achievement:</p>		
<p>Project Purpose:</p> <p>To mobilize and focus an institutional response capability at the Univ. of Arizona on multiple-use planning and management of arid and semi-arid lands and associated natural resources in developing countries.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>a) Established and recognized as a center of excellence within US for information, expertise & applied research & development related to integrated resource mgt. in LDCs.</p> <p>b) Absorption of activities into academic mainstream of Univ. of Arizona.</p> <p>c) Continuous & significant involvement on LDC problems.</p> <p>d) Adequate financing available.</p>	<p>a) Peer evaluation b) Annual report, on-site observation c) Utilization record d) Annual report, university budget e) Evaluation against year 1 base-line assessment.</p>	<p>Assumptions for achieving purpose:</p> <ul style="list-style-type: none"> - Hypothesis is correct, i.e. outputs will result in purpose achievement. - gradual increase in utilization - utilization will provide partial support of capacity
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Specialized Information system 2. New Education and training program 3. Upgraded adaptive research capacity on policies, methodologies and techniques. 4. Expanded Advisory capability. 5. Network of worldwide institutional linkages. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1.a) inventory of US and international talent by 1976 b) Bibliographic info file internationalized in years 1 and 2 c) current dissemination system upgraded in year 1 d) Newsletter distributed internationally in 1976. 2.a) curriculum analyzed in year 1 <p>(CONTINUED)</p>	<ol style="list-style-type: none"> 1. a) On-site observation, annual report b) ditto; plus baseline comparison c) ditto d) annual report; observation 2. a) Annual report b) ditto plus observation c) ditto plus AID participation <p>(CONTINUED)</p>	<p>Assumptions for achieving output:</p> <ol style="list-style-type: none"> 1. LDC & others willing & able to provide inputs & utilize product 2. Demand exists; AID & other donor assistance 3. Success in achieving Output 1; help from AID & other US agencies 4. Continuing faculty involvement; demand for response capabilities. 5. AID assistance & support interest and capacity; that work will prove framework for other outputs.
<p>Inputs: (activities and tasks):</p> <p>Course development Research Faculty seminars and workshops Consultation-application and testing Teaching and training Information collection and analysis</p>	<p>Implementation Target (Type and Quantity)</p> <p>a) See Budget Summary</p> <p>b) U. of Arizona contribution</p> <ul style="list-style-type: none"> - Mgmt. Committee Salaries -- \$27,000 - equipment, facilities, overhead for existing programs & projects - start-up & organization costs including overseas staff travel - continued non-AID funding of base of activities on which 211-d grant will build 		<p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> 1. Present base of University programs maintained with non-AID funds. 2. Inter-departmental cooperation and participation can be sustained. 3. LDC interests in participating can be generated and sustained. A. Program will become self-sustaining by end of year 5 with University, State and other donor funding predominating.

Continuation of 211(d) Institutional Grant Project Design Summary

Magnitude of Outputs (continued)

- 2.b) new courses introduced beginning year 2
- c) faculty seminar year 1; faculty-student series year 2; 1 overseas workshop each of years 2-5.
- d) capacity to handle 50 LDC and U.S. grad students in new curriculum by end of year 4

- 3.a) 2 research projects each year after year 1, at least one in cooperation with LDC institution

- 4.a) increasing number of faculty and students participating in course work and research
- b) increasing number of representatives of grantee institution directly involved in advising donor agencies and LDCs
- c) pre-paid advisory services used under grant (which increase from \$3,000 - \$10,000 over life of grant)

- 5.a) 5 linkages with LDC institutions established
- b) Cooperative programs underway by end of year 2
- c) New linkages with US Federal, State, and international organizations established throughout program, each involving significant cooperative activity.

Means of Verification (continued)

- 2.d) annual report, on-site observation, baseline comparison

- 3.a) Annual report; on-site observation

- 4.a) Annual report; on-site observation, baseline comparison
- b) ditto
- c) Annual report; observation

- 5.a) Annual report; on-site evaluation
- b) ditto
- c) ditto plus baseline comparison



THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

VICE PRESIDENT
RESEARCH

March 14, 1974

Dr. James McDermott, Director
Office of Research and Institutional Grants
Technical Assistance Bureau
Agency for International Development
Washington, D.C. 20350

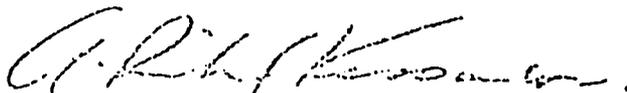
Dear Dr. McDermott:

The University of Arizona is pleased to submit herewith a proposal for a five year program on "Integrated Natural Resources Planning and Management of Arid and Semi-Arid Lands" for support under the AID 211(d) Institutional Grants program. We believe that the proposal addresses a critical set of interrelated resource management problems of growing concern to the entire international development community and that, if funded, our University will be able to develop a unique and effective response capability in support of AID and U.S. assistance efforts over the long-term.

Dr. Jack Johnson, currently Director of the Office of Arid Lands Studies, and who will become director of the Grant program if funded, has been authorized by the University to act on its behalf in any discussion or negotiating regarding this proposal.

We appreciate your consideration of this submission.

Sincerely,


A. Richard Kassander, Jr.

ARK/jmi

211 (d) Institutional Grant Summary

INTEGRATED NATURAL RESOURCES PLANNING AND MANAGEMENT

Office Of Science And Technology
Agency For International Development
April 1974

211(d) Institutional Grant Project Summary

A. GRANT SUMMARY

1. Title: INTEGRATED NATURAL RESOURCES PLANNING AND MANAGEMENT
2. Status: New
3. Proposed Grantee: UNIVERSITY OF ARIZONA
Tucson, Arizona
4. Project Director: Dr. Jack Johnson, Director
Office of Arid Lands Studies
5. Total Estimated Cost: For five years - \$1,044,45
6. AID Liaison Officer: Bill L. Long - TA/OST
7. Project Description

This Grant is designed to assist the University of Arizona establish an institutional response capability in the area of multiple-use planning and management of natural resources in developing countries. The program will focus on concepts and technologies for inventorying, assessing, and managing the resource base in a manner that optimizes overall benefits over the long term. Special importance will be attached to the socio/economic, institutional, legal and public policy aspects of resource management.

The scope of the program will necessarily encompass the full spectrum of natural resources of a region -- land, soil, water, minerals, energy, forests -- since their mutual relationships and interactions are of principal concern. Emphasis will be placed on arid and semi-arid lands where a particular strength of the University matches the priority currently assigned to this type of ecosystem by the UN Environment Programme, UNESCO (within its "Man and the Biosphere Programme"), and by AID in terms of its relevance to the African Sahel and other drought-prone, agricultural-oriented regions of the developing world. However,

UNITED STATES GOVERNMENT

Memorandum

Mike for [unclear] - RIGC

TO : TA/RIG, Mr. D. T. Myren

DATE: April 17, 1974

FROM : PHA/PVC/OPNS, *AW Bergen*
Stephen W. Bergen

SUBJECT: 211(d) proposal - Natural Resources - University of Arizona

I have reviewed this proposal and would approve making this grant to the University of Arizona.

One gut reaction I have is we should not ask or expect this one university to be the only source of help on resource planning problems. The range of problems is too great. In time, other universities should receive grants as well.

I regret I will not be able to attend the discussion tomorrow, owing to official travel.

25 February 1974

MEMORANDUM FOR: AA/TA, Curtis Farrar

FROM: AA/TA, Raymond E. Kitchell 

SUBJECT: Proposed Arizona Resource Planning 211(d) Grant

In anticipation of tomorrow's meeting with Kelley, E. Long, McDermott, Arnold, Plucknett and W. Long, I read the grant statement carefully over the weekend to determine whether the proposed on-site comprehensive review of the water grant should be combined with negotiation of the OST proposal. In view of the need to get on with approval and final negotiation within FY 1974, these two events should not be combined. The proposal is clearly beyond the water grant and, in my opinion, should be developed as a separate grant and probably also managed separately. However, the review team going to Arizona in late April should look into the question of how grant-funded water activities could or should be tied into this grant when and if awarded and assuming the water grant is extended.

At the same time, at your request, I looked at the proposal in terms of TAB's current requirements, as adjusted by the recently issued 211(d) position paper. I realize the OST proposal, which is adequate in many if not most respects, was prepared before our new instructions were issued. Nevertheless, RIGC is sure to question why this grant has not be developed in the context of the "Report" and there are some critical gaps. Within this framework, I have the following comments and suggestions:

1. The grant statement is too long. It is repetitive to the point of overkill in some portions but silent or thin on other pieces. If the new suggested format is followed (in many cases, simply a cut and paste job), redundancies can be eliminated and some materials included simply as attachments (e.g., proposed organizational plan, detailed listing of international experience, illustrative activities, etc.)

2. In justifying a 211(d) grant and negotiating the terms and conditions, the single most important task is to clearly spell out the purpose of the grant, the objectives (outputs to be produced, the results sought), and some jointly developed indicators of success. These are not always clear or consistent in the present draft and can lead to trouble later on.

3. In Exhibit A, I have repeated the various portions of OST's draft which could be considered as purpose statements. Purpose, objectives and activities are inter-mixed. A brief and finite purpose statements should be developed along with (EOPS) indicators of successful achievement, e.g.,