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PROJECT PAPER

Amendment Number One

Project 608-0160

AGRONOMIC INSTITUTE

Morocco

CC0127

June 1984

UNCLASSIFIED  
Department of State

OUTGOING  
TELEGRAM

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TAGS:

SUBJECT: AGRONOMIC INSTITUTE PROJECT 603-0160;  
- - PROJECT PAPER AMENDMENT NUMBER ONE AND  
- - MID-PROJECT EVALUATION NEAC REPORTING CASE

REF: (A) STATE 099310  
- (B) RABAT 03570  
- (C) STATE 091737

1. A NEAC MEETING WAS HELD ON APRIL 3, 1984, TO REVIEW THE PP AMENDMENT AND MID-PROJECT EVALUATION OF THE SUBJECT PROJECT. THE MISSION IS COMMENDED FOR AN EXCELLENT PES AND VERY WELL WRITTEN PP AMENDMENT. NEAC DECISIONS ARE SUMMARIZED BELOW AND KEYED TO ISSUES PAPER TRANSMITTED TO MISSION IN REF (C).

2. ISSUE 1: ACCEPTANCE OF THE MID-PROJECT EVALUATION AND PES 608-84-01. THE NEAC ACCEPTED THE EVALUATION AND PES NOTING THE DOCUMENTS FOUND THE PROJECT DESIGN TO BE SOUND AND IMPLEMENTATION TO BE ON SCHEDULE. THE PES PROVIDED ADEQUATE INFORMATION AND A BASIS TO EXTEND THE LOP AND INCREASE PROJECT FUNDS. THE CLEAR AND SUCCINCT PES WILL BE MADE AVAILABLE TO OTHER NE MISSIONS.

3. ISSUE 2: APPROVAL OF PP AMENDMENT NUMBER ONE. THE PP AMENDMENT WAS APPROVED BY NEAC TO CONTINUE THE BASIC PROJECT DESIGN, EXTEND THE LOP TO TEN YEARS AND INCREASE FUNDING TO DOLS 28.5 MILLION.

4. ISSUE 3: RECOMMENDATION TO THE ADMINISTRATOR THAT A SOLE SOURCE WAIVER BE APPROVED IN ORDER TO CONTINUE THE PRESENT CONTRACTOR. THE NEAC CONCLUDED THAT IT MAKES GOOD SENSE BASED ON THE RATIONALE OUTLINED IN REF (C) TO CONTINUE THE HOST COUNTRY CONTRACT BETWEEN THE UNIVERSITY OF MINNESOTA AND HASSAN II AGRONOMIC AND VETERINARY INSTITUTE. THEREFORE, IT RECOMMENDED THAT AN ACTION MEMORANDUM WITH A SOLE SOURCE WAIVER REQUEST TO AMEND THE CONTRACT WITH THE UNIVERSITY OF MINNESOTA BE FORWARDED TO THE ADMINISTRATOR WITH THE AUTHORIZATION PACKAGE.

5. CONCERN 1: FUNDING FOR IAV FACULTY WITH DOCTORATES TO ATTEND A U.S. UNIVERSITY FROM WHICH THEY COULD BE GRANTED A SECOND DOCTORAL DEGREE. THE NEAC ENDORSED THE

IDEA OF FACULTY RETURNING TO THE U.S. TO STRENGTHEN PROFESSIONAL ABILITY, PREPARATION OF SCIENTIFIC PAPERS, ETC. HOWEVER, IT SHOULD NOT BE A ROUTINE PROCEDURE FOR ALL PARTICIPANTS AND SHOULD BE HANDLED ON AN EXCEPTIONAL BASIS. COURSES FOR ACADEMIC CREDIT SHOULD ONLY BE FUNDED FOR TENURED PROFESSIONAL STAFF WITH CONSIDERABLE EXPERIENCE AFTER RECEIPT OF FIRST PROJECT-FUNDED DEGREE. PRIOR TO DEPARTURE THE PROPOSED PROGRAM FOR EACH PARTICIPANT SHOULD BE APPROVED BY BOTH IAV AND USAID/MOROCCO.

5. CONCERN 2: BUDGET CONTINGENCY COSTS. THE NEAC REQUESTED THAT THE PROJECT BUDGET IN THE AMENDMENT INCLUDE A CONTINGENCY LINE ITEM FOR EACH YEAR. THE REQUEST MADE IN REF (A) AND CHANGES DESCRIBED IN REF (B) HAVE BEEN ACCEPTED AND REVISED PP AMENDMENT HAS BEEN RECEIVED BY AID/W.

6. CONCERN 3: METHOD OF PAYMENT FOR PROJECT INPUTS. THE NEAC AGREED THAT THE PROJECT SHOULD CONTINUE TO FINANCE INPUTS AS IS CURRENTLY DONE UNDER THE HOST COUNTRY CONTRACT, THAT IS, AN ADVANCE IS MADE TO THE CONTRACTOR WHICH IS REPLENISHED BASED ON MONTHLY VOUCHERS. THIS ADVANCE IS BASED ON CURRENT BUSINESS AND ADJUSTED ACCORDING TO THE COLLABORATIVELY DEVELOPED ANNUAL WORKPLAN.

7. CONCERN 4: RELEVANCE OF AGRONOMIC INSTITUTE'S CURRICULUM TO MOROCCAN AGRICULTURE. THE NEAC RECOMMENDED THAT ALL ENTITIES (USAID, IAV AND THE UNIVERSITY OF

MINNESOTA) REEMPHASIZE THE IMPORTANCE OF CLOSELY RELATING TRAINING AND CURRICULUM TO MOROCCO'S AGRICULTURAL CONDITIONS. SHULTZ

UNCLASSIFIED

<b>AGENCY FOR INTERNATIONAL DEVELOPMENT</b> <b>PROJECT DATA SHEET</b>		<b>1. TRANSACTION CODE</b> <input type="checkbox"/> A = Add <input checked="" type="checkbox"/> C = Change <input type="checkbox"/> D = Delete	Amendment Number One	<b>DOCUMENT CODE</b> 3
<b>2. COUNTRY/ENTITY</b> Morocco		<b>3. PROJECT NUMBER</b> 608-0160		
<b>4. BUREAU/OFFICE</b> Near East		<b>5. PROJECT TITLE (maximum 40 characters)</b> AGRONOMIC INSTITUTE		

<b>6. PROJECT ASSURANCE COMPLETION DATE (PACD)</b> YY 90	<b>7. ESTIMATED DATE OF OBLIGATION</b> (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 810 B. Quarter <input type="checkbox"/> C. Final FY 818
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8. COSTS (\$000 OR EQUIVALENT \$1 = )						
A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	( 1, 819 )	( 153 )	( 1, 972 )	( 26, 554 )	( 1, 954 )	( 28, 508 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.	1.					
	2.					
Host Country		1, 036	1, 036		10, 870	10, 870
Other Donor(s)						
<b>TOTALS</b>	1, 819	1, 189	3, 008	26, 554	12, 824	39, 378

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ARDN	600	630		9, 721		18, 787		28, 508	
(2)									
(3)									
(4)									
<b>TOTALS</b>									

<b>10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)</b> 660	<b>11. SECONDARY PURPOSE CODE</b> N/A					
<b>12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)</b>						
A. Code	R/ED	R/AG				
B. Amount						

**15. PROJECT PURPOSE (maximum 480 characters)**

To continue faculty training and related institution-building at the Hassan II Agronomic and Veterinary Institute, the National Agricultural School at Meknes, and the National School for Forestry Engineers, Sale.

<b>14. SCHEDULED EVALUATIONS</b> Interim MM YY MM YY Final MM YY 0 6 86 0 6 88 0 6 90	<b>15. SOURCE/ORIGIN OF GOODS AND SERVICES</b> <input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify)
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**16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)**

This Amendment replaces in their entirety the Financial, Implementation, Contracting and procurement, and Evaluation Plans of the original Project Paper. The Project Description and Project Specific analyses of the original Project Paper are retained. The amendment extends the life of project to 10 years and increase AID's anticipated financial contribution to the project from \$9.7 million to \$28.5 million. This amendment provides for full funding of all participants to be trained under the project.

<b>17. APPROVED BY</b> Signature: Robert C Chase Title: Director, USAID/Morocco Date Signed: MM DD YY 014 21 814	<b>18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION</b> MM DD YY 014 30 814
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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON D.C. 20523ASSISTANT  
ADMINISTRATOR

JUN 18 4 55 PM '84

18 JUN 1984

EXECUTIVE SECRETARIAT

ACTION MEMORANDUM FOR THE ADMINISTRATOR

FROM: AA/NE, W. Antoinette Ford

SUBJECT: Morocco Agronomic Institute Project 608-0160

Problem: A waiver is required to permit sole source negotiation for a host country contract in excess of \$28 million between the University of Minnesota and the Hassan II Agronomic and Veterinary Institute (IAV) in Morocco under the Agronomic Institute project (608-0160). The result of the issuance of such a waiver would be to increase the costs of an existing contract between the University of Minnesota and IAV from \$9.7 million to approximately \$28.5 million and to increase the work or level of effort under that contract.

Discussion: Under Handbook 11, Chapter 1, Paragraph 2.4.2.b, you are authorized to waive competition in the procurement of services and authorize a single source negotiated contract for procurements which increase the scope of work or level of effort of existing host country contracts. "Negotiation with the single source must be justified under one of the criteria contained in a.1 through a.5..." of Paragraph 2.4.2.

Criteria a.3 and a.4 of Paragraph 2.4.2 read as follows:

- "3. One firm can be demonstrated to have the unique capability by reason of special experience or facilities, or specialized personnel who are recognized as predominant experts in the particular field to perform the services required for the project.
- "4. The Borrower/Grantee desires to utilize a contractor previously engaged in the project for follow-on work and the contractor clearly has special capability by virtue of previous experience in the work, but the contractor was either not initially selected on a competitive basis or the contracting agency did not advise all competing firms that a follow-on contract might result..."

Both of these criteria apply to these circumstances.

At the outset, it was determined that this project should be designed and implemented by a Title XII University under the "collaborative assistance" mode. The University of Minnesota was selected by USAID/Rabat, with the concurrence of the Near East Bureau and the BIFAD staff as the collaborating university to undertake the design activity. The selection was made on a non-competitive basis, whose procedure was approved unanimously by the A.I.D. Non-Competitive Review Board on May 22, 1979. The authority for that approval was Section 7-3.101-50(b) (3) of the A.I.D. Procurement Regulations (41 C.F.R. Part 7): "predominant capability by reason of experience, specialized facilities or technical competence to perform the work within the time required and at reasonable prices."

Upon reviewing the facts presented, the Board decided to approve non-competitive negotiation with the University of Minnesota not only for the design work, but also for implementation of the project. However, since the project was to be implemented primarily pursuant to a host country contract, the Board's decision with respect to implementation was not binding and a sole source waiver was required in order to negotiate the implementation phase of the project with the University of Minnesota.

After the project was designed and based upon the justification set forth in Annex 7.6 of the original Project Paper, the A.I.D. Administrator approved a waiver of competition in accordance with A.I.D. Handbook 11, Chapter 1, Section 2.4.2.a, to allow negotiation with a single source (the University of Minnesota) for services for implementation of the project.

At that time the project was approved for only five years, although it was designed for 10 years. It appears to have been the intention of all parties that subject to the availability of funds and positive evaluations the project would continue for another five years utilizing the same contractor.

This project, like the predecessor projects, has been consistently positively evaluated, including by a special collaborative evaluation completed in August 1983. This in-depth evaluation found that the IAV was in general highly satisfied with the performance of the University of Minnesota under the contract, and that the design of the underlying project was essentially sound. The evaluation report recommended strongly that the project be amended to extend the LOP to ten years, as had originally been intended, and that an increase be made in the level of effort in certain institution-building areas, including technical assistance, and commodity support.

The Government of Morocco wishes to continue to use the University of Minnesota to implement this project. The University would continue the same activities, i.e. would provide technical assistance and training and would procure all project commodities, but at an increased level of effort. This increased level of effort would raise the contract costs from \$9.7 million to approximately \$28.5 million.

The project is now in the final stages of being amended to adopt these recommendations and is awaiting the granting of this waiver for final approval. The evaluation team also found that it was in the interest of IAV and of AID that the recommended increased level of effort be carried out by the University of Minnesota. To do so would ensure that participants already in the U.S., and those who have returned to Morocco but are still pursuing their doctoral dissertation research - and who are closely managed and supervised by Minnesota resident team members in Morocco - would continue to be well supervised and managed without interruption. The University of Minnesota has, under this project, also placed a number of participants at other U.S. land grant institutions, at the request of IAV, and has created a process with these other universities known as the "Partnership," through which these participants are placed, supervised and monitored. The contractor has demonstrated a considerable amount of creativity in generating this inter-university cooperative mode, and in ensuring its continued successful operation.

As part of the review process for the PP amendment, the University of Minnesota was queried about its policy concerning the use of small business organizations owned and operated by socially, economically and culturally disadvantaged persons for subcontracting of project components. In a letter dated April 27, 1984, the Project Director, Roy D. Wilcox replied stating that it was University policy to require purchase of 17% of the value of anticipated total procurement of goods and services from businesses owned and operated by socially and economically disadvantaged persons.

The University of Minnesota has established strong and effective institutional personal linkages with IAV. Building this relationship has involved a heavy investment of time and effort on the part of both the University and IAV. This project - and the increased level of effort called for under the Project Paper amendment - are a continuation of present institution-building efforts. Were IAV to change contractors, the institution-building effort would be seriously interrupted, with no certainty that another university, even with a substantial duplication of time and effort, could recreate the same relationship.

In addition, the University of Minnesota has more knowledge about Morocco, Moroccan agriculture and IAV than most other U.S. universities. Through involvement with IAV, the University of Minnesota has built up a formidable knowledge of Moroccan institutions and culture in general, and the agriculture sector in particular. In addition to its involvement with IAV, the University has, under a separate contract with the Department of Political Science, also been responsible for a major evaluation of the socio-economic impacts of irrigation in Morocco. The team was jointly constituted with faculty from the College of Agriculture. This work has given the University of Minnesota an in-depth and inter-disciplinary knowledge of Moroccan agriculture policy, institutional motivations and practices, and the behavior and characteristics of small farmers and agricultural laborers.

Furthermore, the University of Minnesota is interested in continuing its effort and it is prepared to make special arrangements with its faculty for long-term involvement and tenure for team members. Faculty at University of Minnesota, who have served as advisors to participants during the first four years of this project and predecessor projects, have built up a considerable base of knowledge about IAV and Moroccan agriculture during their frequent and numerous trips to Morocco. Some of these faculty have been travelling to Morocco to supervise students since 1970.

The University has also demonstrated exceptional institutional commitment to the project. Not only has the project been well managed by University of Minnesota and reasonably well staffed, but the University has creatively developed linkages with other universities to broaden the U.S. exposure of IAV faculty and students.

Finally, it should be noted that at this critical juncture, the effect of changing the contractor would be extremely disruptive in time and in substance of education of participants and could not be easily explained on any substantive grounds to participants and other faculty at IAV, or the other IAV senior administrations. In the interest of efficiency, economy and continuity, the University of Minnesota therefore stands in a unique position.

Recommendation: That, by your signature below, and based upon the above justification, you waive competition in the procurement of implementation services for this project and that you authorize the sole source negotiations by IAV with the University of Minnesota for an amendment to their contract for the completion of these project activities in an amount not to exceed \$18,787,000.

Approved:   
M. Peter McPherson

Disapproved: \_\_\_\_\_

Date: June 20, 1984

FIRST AMENDMENT  
TO  
PROJECT AUTHORIZATION

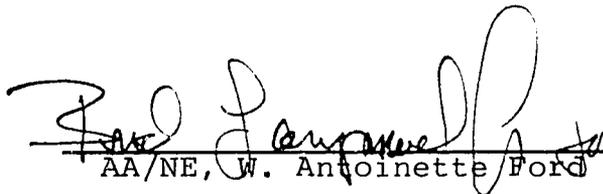
Name of Country: Kingdom of Morocco    Name of Project: Agronomic  
Institute

Number of Project: 608-0160

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, the Agronomic Institute Project for Morocco (cooperating country) was authorized on April 4, 1980. That authorization is hereby amended as follows:

- a. To paragraph 1 is added the following paragraph:  
"Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize an amendment to the Agronomic Institute Project for the Kingdom of Morocco, involving planned obligations of not to exceed eighteen million, seven hundred eighty seven thousand United States Dollars (\$18,787,000) in grant funds over a five year period from the date of this amendment, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing additional foreign exchange and local currency costs for the Project. This amendment increases the Life of Project (LOP) to ten (10) years from the date of the initial Project Agreement and increases the LOP funding to \$28,508,000.
- b. Waiver. On June 20, 1984, the Administrator approved a waiver for the non-competitive negotiation of an amendment to the Host Country Contract with the University of Minnesota.

2. The authorization cited above remains in force except as hereby amended.

  
AA/NE, W. Antoinette Ford

26 June 1984  
Date

Clearance:

DAA/NE:ELangmaid	_____	date	_____
NE/DP:CJohnson	(draft) _____	date	5/15/84
NE/TECH:KSherper	<i>KS</i> _____	date	6/25/84
NE/TECH/AD:WThomas	<i>WT</i> _____	date	6/14/84
GC:HFry	<i>HF</i> _____	date	6/26/84
GC/NE:GDavidson	<i>GD</i> _____	date	6/26

drafted by:NE/TECH/AD:J<sup>10</sup>Rogers:sdb:05/02/84:0624I

II - SUMMARY AND RECOMMENDATIONS

- A - Grantee: The Government of Morocco (GOM)
- B - Implementing Agency: Ministry of Agriculture, Hassan II Agronomic and Veterinary Institute (IAV).
- C - Amount: The Amendment increases the LOP AID project costs of the Agronomic Institute Project from \$9.7 million to U.S. \$28.5 million.
- D - Total Project Costs: Total project cost (including this amendment) is estimated at U.S. \$39.378 million. These costs broken out by source, foreign exchange and local currency are projected as follows:

<u>Source</u>	U.S. Dollars ( '000)		
	<u>FX</u>	<u>LC</u>	<u>Total</u>
AID Grant	26,554	1,954	28,508
GOM	-	10,870	10,870
	<hr/>	<hr/>	<hr/>
	24,986	12,824	39,378

- E.- GOM Contribution: The GOM contribution is estimated to be \$10,870,000 equal to 29% of the total project over the period of active AID involvement. A written assurance to this effect will be received prior to or as part of the project agreement.
- F - Project Purpose: To continue faculty training and related institution building activities at the Hassan II Agronomic and Veterinary Institute, the National Agriculture School at Meknes, and the National School for Forestry Engineers at Sale.
- G - Project Description: The Agronomic Institute Project (608-0160) is an institution building project which was designed to be implemented over a 10-year period by a U.S. Title XII institutional contractor. The original project paper, which was approved in April, 1980, authorized funding for only the first five years of the project. This amendment provides full funding for the entire 10-year period.

Over the ten-year life of project AID will finance long and short-term technical assistance, participant training for students and faculty, commodities to support the development of the Hassan II Agronomic Institute, the National Agriculture School, and the National School for Forestry Engineers, and project evaluation.

This amendment replaces in their entirety the Financial, Implementation and Evaluation Plans and the Logical Framework of the Project Paper.

### III - BACKGROUND TO PROJECT AMENDMENT

#### A - Summary:

The Agronomic Institute Project (608-0160) was authorized in April, 1980 and a Host Country Contract between the Agronomic Institute (IAV) and the University of Minnesota was signed in June, 1980 for project implementation.

The original Project Paper was written in 1979 in the context of a long term institution building commitment to IAV. The project was designed as a 10-year activity. The current project was approved as a 5-year activity with a life of project (LOP) cost of \$9.7 million.

This amendment will extend the authorization to 10 years and increase LOP funding to \$28,5 million. It provides for project completion and makes minor revisions to the project.

The amendment is needed to fully fund the original project activities and to add funds for some new related activities designed to strengthen the project's institution building outcomes.

The project is an integral part of the overall agriculture sector assistance strategy, has been consistently evaluated very favorably, and is being implemented on schedule.

USAID/Morocco believes that the project should be brought to an orderly conclusion in 1990, consistent with the original design. The USAID has concluded that amendment of the existing Agronomic Institute project is more efficient and more appropriate than initiating a new follow-on project.

This amendment replaces in their entirety the Financial Plan, Implementation Plan, Evaluation Plan and the Log Frame of the original Project Paper. The Project Description and Project specific analyses of the original PP are retained. However, the abbreviated Project Description of this amendment shall prevail in case of differences.

This amendment does not change the basic design of the project. Some peripheral but important changes and additions to the design are made as specifically noted in Section III-F below. This amendment does extend the LOP to 10 years and increase total funding to \$28,5 million. The consequent changes in Project inputs and outputs are described in Section IV.

#### B - Project Background:

The Agronomic Institute Project is an institution building and agricultural manpower development project aimed at developing Morocco's Institut

Agronomique et Veterinaire Hassan II (IAV), and two associated agriculture schools. The institutional capacity developed through this project will relate directly to the needs of Moroccan farmers, including small and medium scale farmers in rainfed areas with the lowest level of income and productivity. This project is critical to USAID's Rainfed Agriculture Sector Development Strategy, since it provides support to the development of scarce agricultural technicians, scientists and managers without whom Moroccan agriculture development programs cannot succeed.

The most innovative feature of the project is that students are sent to U.S. universities (not just to the University of Minnesota) to complete their coursework for M.S. and PhD degrees and then return to Morocco to do research. The students write either their master's theses or doctoral dissertations on a research problem in Morocco, and degrees are granted by IAV.

#### Project Goal:

Produce an increase in the supply of trained managers, technicians and scientists to staff programs and projects and formulate development policy to aid Moroccan agriculture in implementing broad-based, participatory agricultural development programs aimed at increased output and employment.

#### Project Purpose

The continued faculty training and related institution building activities at the Hassan II Agronomic and Veterinary Institute, ENA and ENFI, to aid the creation and institutionalization of a "modern" system for higher agricultural education in Morocco, with appropriate linkages to the rest of the technology delivery system, and involving low income farmers and herders.

#### Outputs

The primary outputs of this project will be trained Moroccan faculty who have replaced expatriate faculty members; graduate-level programs offered in the agricultural and social sciences at IAV; student theses and publications on agricultural research performed in Morocco; strengthened linkages with research and extension organizations in the public and private subsectors of national agriculture; and linkages with U.S. agricultural science and agri-business as well as with the International Research Centers.

#### Inputs:

The primary U.S. inputs to achieve these outputs will be foreign exchange and local currency to fund resident and TDY technical assistance, long and short-term participant training in the U.S., short-term third country training, commodities to support teaching, research and outreach activities, including documentation and computer center hard- and software. The GOM will provide IAV, ENA and ENFI graduate students and

faculty to go to the U.S. as participants, support for returning participants doing research teaching and outreach in Morocco, office space and related support for the long and short-term U.S. T.A., airfares for participants.

### C - Progress in the Development of the Agronomic Institute

At Independence in 1956, Morocco's only college-level agricultural school was the National Agriculture School at Meknes, established in 1947 to train the sons of wealthy French colonist farmers. Very few Moroccans were admitted to ENA prior to Independence. By 1956 there were a few Moroccans who had received higher-level training in agronomy and related subjects in France. In 1964, the GOM announced its intention to establish a Moroccan university-level agronomic training program. In 1966, the IAV was established in Rabat. It started with 12 students, no buildings and no equipment. The Institute now has 2,300 students, 15 programs of specialization on two campuses. There are 313 faculty, of whom 229 are Moroccan, teaching different subjects in 13 fields. Five professional associations have been created, as well as an active alumni association. IAV has developed an integrated philosophy of agricultural education in Morocco which includes an applied, "hands-on" approach to teaching, research and outreach.

This rapid development has been supported by two predecessor AID projects beginning in 1970, as well as by other donor programs. IAV is now training the majority of Morocco's agricultural scientists, technicians and managers. It is the only institution in Morocco granting master's and doctoral degrees in agriculture and veterinary medicine. Four year B.S. degrees are also granted by IAV and two other associated schools which also receive faculty training and related support under this project. The National Agriculture School (ENA) at Meknes and the National School for Forestry Engineers at Sale (ENFI).

Over time the IAV curriculum has evolved, and it now provides both 4-year B.S. and 6-year master's programs. It recently granted its first Doctor of Science degree. After a combined first year, the 150 of 550 students who have performed best are allowed to opt either for agronomic sciences or for veterinary medicine in the 6-year master's program. Presently, 50 of the 150 opt for veterinary medicine. The other 400 are streamed to ENA, ENFI or IAV's new campus at Agadir, and some stay at Rabat.

This second campus, recently completed, is located at Agadir (in the south), and provides training at all levels (B.S., Master's, two-year technician training and in-service training) in horticulture and plant protection. This represents a conscious effort by IAV to decentralize and regionalize its training programs and to provide outreach to a variety of subsectors and commodity related agro-industries. This project also assists faculty development and applied research and outreach at ENA and at ENFI. ENA administrators and faculty are currently working closely with local farmers on a number of local disease and other production problems. Faculty participants at ENFI are seeking ways to generate better linkages for applied research with the National Forest Service, especially in the area of soil conservation and watershed management.

IAV is organized as an independent public establishment with its own statute. It is governed by an advisory board composed of representatives of the Ministry of Agriculture and Agrarian Reform (MARA), the Ministry of Education and the Ministry of Finance, as well as of the National Agronomic Research Institute and the Extension and Agrarian Reform Service. Its budget is channelled through the Ministry of Agriculture. IAV, and its sister institutions, ENA and ENFI, trains all the higher-level manpower for the public and private organizations in the Moroccan agriculture sector (see chart 1).

The Institute is still dependent on expatriate faculty, although the balance is rapidly changing as Moroccanization occurs. Of the approximately 229 Moroccan faculty, most are young assistants, with no more than the equivalent of M.S. training, almost all trained at IAV in the last 4-5 years. Only 5 Moroccan faculty have doctoral degrees to date, although it is anticipated that six participants under this project will receive their doctorates by mid FY 1984.

Since 1970, AID has provided support to IAV through contracts with the University of Minnesota. Under the two predecessor projects, 608-088 and 608-0134, the University of Minnesota has provided resident faculty, visiting faculty, and participant training. The initial objectives of these projects were modest. In the first 4 years, there was a major emphasis on resident instruction by U.S. faculty in the undergraduate program. In 1972, the first participant was sent to the U.S. for master's-level training. Since FY 1972, 174 third cycle (master's) students have received 5th year training in the U.S. and most did their thesis work in the 6th year back in Morocco. The development of an entirely IAV-taught third cycle program in soil science and forestry started in September, 1979 is an indication of project progress. The first IAV faculty participants at the doctoral level were sent to the U.S. in 1978. To date, 84 faculty have been sent to the U.S., 11 at the master's level and 73 at the doctoral level. Of these 35 have returned to Morocco to resume their teaching responsibilities and to work on their dissertation research.

The present project was favorably evaluated by an internal AID evaluation exercise in May, 1982. Some adjustments to project management were called for and have since been made. An in-depth mid-term special, collaborative evaluation was finished in August 1983. This evaluation is very positive and recommends that the project be amended to extend LOP to 10 years and further funding provided to fully implement the original project design with certain additions.

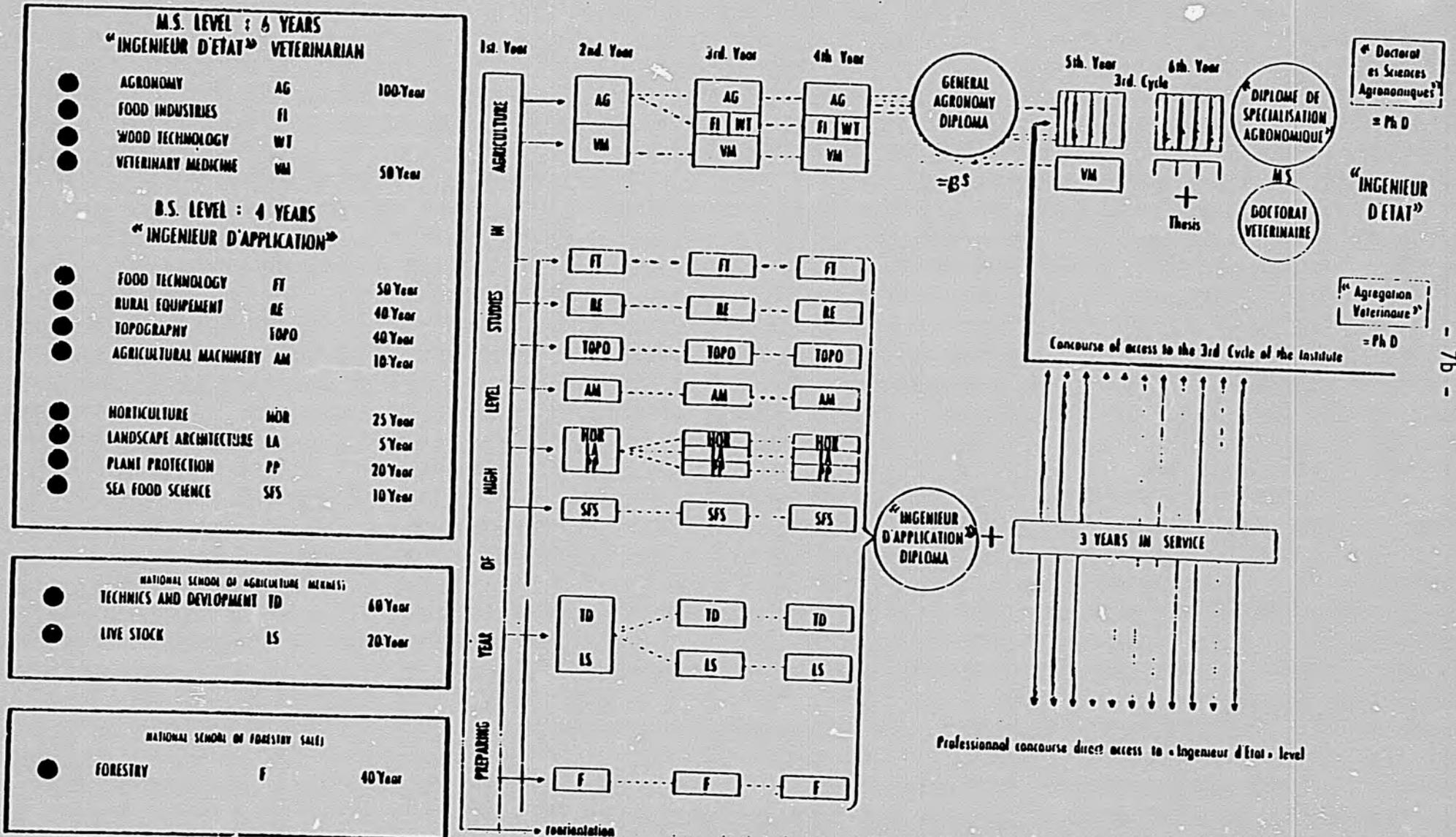
The 1983 evaluation found that the project has had intensive as well as extensive positive impact on the institutional development of IAV, ENA and ENFI. IAV's recent reorganization into Sections and Departments, with cross-cutting Directorates for Instruction, Research and Development, largely conforms to the model generated by the U.S. land grant tradition. The new emphasis on applied research and rewarding research excellence, as well as IAV's traditional emphasis on outreach, have been strengthened with project support. Forty per cent of participants trained in the U.S.

Chart 1

KINGDOM OF MOROCCO

HASSAN II ND INSTITUTE OF AGRONOMY AND VETERINARY MEDICINE

HIGHTRAINING OF AGRICULTURAL MANPOWER



Source: Firdawcy, M.L., A system of integrated education of trained personnel in Agriculture in Morocco, Association of Faculties of Agriculture in Africa, June, 1979.

at the master's level have been recruited as members of the IAV faculty. Faculty participants who have returned to ENA and to ENFI are providing successful models of the benefits to be achieved by associating research with teaching.

Despite these impressive achievements, continued AID assistance is required to enable IAV to achieve its goal of becoming a fully-staffed, modern, Moroccan institution. This cannot be accomplished so long as IAV and the associated schools are dependent on foreign faculty.

D - Rationale for Project Amendment

This project paper amendment is needed to continue and accelerate the institutional development of IAV, ENA and ENFI, which together form a linchpin of the future implementation of the USAID's rainfed sector strategy. It should specifically be noted that:

1. The Project Paper (1979) clearly envisioned a follow-on project. The design was for a 10-year activity. Participants and institution building activities were not fully forward funded (e.g. participants were projected to leave for the U.S. even in the last year of the 5-year project authorization). The needed faculty for IAV was only partially to be developed in the first five years (65 departures out of an original goal of 150). Institution building goals were not expected to be realized in the first five years.

2. USAID's Rainfed Agricultural Assistance Strategy has been developed since the Agronomic Institute project was authorized in 1980. The strategy emphasises development of Morocco's non-irrigated sector, which produces most of Morocco's cereals, oil seeds and livestock. IAV is widely regarded as one of the more effective institutions in Moroccan agriculture. It has been identified by the CDSS and all subsequent USAID planning efforts for a major role in the implementation of the Rainfed Strategy in areas of teaching, research and extension. IAV is already participating in the implementation of AID's Dryland Project (608-0136) through the social and economic analysis and the training of participants. IAV and the related National Agricultural School and National School for Forestry Engineers are key links in the expanded rainfed agriculture program.

IAV, through the amended Agronomic Institute Project, will be able to train all of the B.S and most of the M.S technicians needed for Morocco's rainfed sector. Training under the Dryland Agriculture Research Project is being coordinated with IAV. This project revision and completion of IAV's institutional development will eliminate much of Morocco's future need to finance costly overseas participant training. This is, of course, the fundamental rationale of AID assistance to developing a quality Moroccan agricultural training capability which is a necessary condition for Moroccan agricultural development. However, the USAID believes that the project amendment makes minor changes in the project to even more closely integrate the project and IAV into the future implementation of the Agricultural Sector Strategy. Chances of long term

success in improving research, extension and production in the rainfed areas would be negligible without this indigenous capacity to educate and train agricultural manpower needed to implement the Rainfed Agriculture Strategy.

3. Experience with project 608-0160 since its implementation started in June, 1980, provides a solid basis for future project success. The original design was based on a number of innovative, but then untested initiatives. These included the use of one university contractor to place participants in a large number of U.S. universities, the conduct of all U.S. and doctoral dissertation research in Morocco and granting of all doctoral degrees by IAV (not by U.S. universities). The realization of these objectives has surpassed all expectations. Eighty two faculty members and one hundred and two third cycle students have been placed at more than 20 U.S. universities, Doctoral dissertation research is being successfully carried out by 21 returned IAV faculty on important applied topics relevant to Moroccan agriculture. U.S. faculty members make frequent TDY visits to Morocco to advise their faculty participant students and provide additional educational experiences to IAV while in Morocco. Project management has been very good and the University of Minnesota's relations with IAV, GOM and the USAID excellent. The institution building goals are being realized. The ongoing re-design of curricula, changes in internal IAV administration, decentralization of budget management, and the rapid development of IAV's campus at Agadir are all evidence of successful institutional developments to which the project has contributed.

In summary, experience under the current project and the evident need for trained Moroccan personnel to implement the Rainfed Agricultural Strategy are compelling reasons for this project revision. Nevertheless, the USAID has carefully examined ways to reduce overall project costs to accelerate project completion and to place finite limits on AID's development assistance to IAV. Consequently, some significant changes have been made in project design as described in Section F below.

#### E - Confirmation of Project Faculty Training Goals

One of the major outputs of the project is a trained Moroccan faculty. The 1979 Project Paper spoke of the 10 year goal of training half the future faculty of IAV, or about 150 persons. USAID still believes that an effort of this magnitude is necessary to ensure the long term institutional viability of IAV. This Amendment provides for a total of 140 doctoral faculty training programs and 25 M.S. programs. This modest increase reflects some minor changes in IAV's long run staffing plan and the inclusion of faculty from ENFI and ENA. This also represents a realistic limit on what it will be possible to achieve during the expanded life of this project.

IAV currently has a faculty of 229 Moroccans. As explained above, most of these are young recruits and recent graduates of IAV's own third cycle program. IAV now has a target of a future faculty of 400 persons, i.e. it intends to recruit 121 new people in the next 5 years. This is an

increase of 55 over the projected IAV staffing plan of 1979 as shown in the original PP. The current distribution of faculty and recruitment targets is shown in Table III-I.

It should be noted that the target of 400 includes faculty at the "coordinate" campuses of the forestry school (ENFI) at Sale and at Meknes (ENA). The schools, together with the Rabat and Agadir Campuses, make up the higher agricultural education system in Morocco. They are closely linked, since all students do their first year work at the main campus at Rabat, and there is considerable sharing of faculty from one campus to teach at another.

The distribution of faculty currently in the program, and to be trained, is shown in Table III-2. The USAID believes these goals, consistent with the original PP, are necessary and reasonable. The 1983 Evaluation also concluded that these training goals were appropriate.

The USAID will, through the collaborative assistance mechanisms of this project, closely monitor the IAV faculty development program and the choice not only of disciplines but of applied dissertation research topics so that maximum support is obtained for the implementation of USAID's Agricultural Sector Strategy.

Other donors are expected to provide some assistance to IAV in the development of the faculty of IAV. However, AID is the only donor providing structured, planned and coherent institution building assistance to IAV. Other donors are providing expatriate faculty to IAV (resident and short-term), scholarship for third cycle training and more limited assistance for faculty to study abroad. This assistance is decreasing. None have committed themselves to specific activities, by discipline, to develop the remaining needed IAV faculty (see also Financial Plan below - Contribution of other donors).

TABLE III-I IAV: OUTLINE STAFFING PLAN 1983-87<sup>1)</sup>

FIELDS	NUMBER OF FACULTY ON BOARD September 1983	TO BE RECRUITED					TOTAL
		1984	1985	1986	1987	1988	
<u>FACULTY</u> (eligible for Doctorate Training)							
Basic Sciences	23	10	10	2	-	-	45
Agronomy	126	15	15	15	13	13	197
Veterinary Medicine	36	6	6	5	-	-	53
Topography	14	-	-	-	-	-	14
<u>TECHNICAL STAFF</u> (eligible for M.S. Training)							
B.S. Level Technicians and Instructors	74	3	3	1	-	-	81
English Teachers	6	2	1	1	-	-	10
TOTAL	<u>279</u> <sup>2)</sup>	<u>36</u>	<u>35</u>	<u>24</u>	<u>13</u>	<u>13</u>	<u>400</u> <sup>3)</sup>

1) Recruitments, if any, after 1988 will not be eligible under the project for U.S. training.

2) Of which 35 at ENA (Meknes) and 12 at ENFI (Sale)

3) Of which 40 at ENA (Meknes) and 12 at ENFI (Sale).

TABLE III-2 - IAV: Targeted Faculty Training by Department and Specialization

Department & Specialization	Number of Positions at IAV	Faculty Participants			Total Participants
		Currently in Program (March 1984)	<u>Doctoral</u>	<u>MS</u>	
<u>BASIC SCIENCES</u>					
(Mathematics, Biometrics, Physics, Chemistry & Biochemistry, Geology & Geomorphology, Animal Biology & Physiology, Plant Biology & Physiology, Genetics Drafting)	45	2	1	4	7
<u>ENVIRONMENTAL SCIENCES</u>					
(Soil Sciences, Soil Conservation, Watershed Management, Soils Physical Chemistry, Soils Microbiology, Ecology, Pasture Management, Forestry, Mapping)	42	8	-	6	14
<u>HYDROBIOLOGY &amp; SEA FOOD SCIENCES</u>					
	12	1	-	5	6
<u>PLANT PRODUCTION</u>					
(Plant Improvement, Crop Science, Plant Pathology, Entomology, Virology)	39	12	-	8	20
<u>ANIMAL PRODUCTION</u>					
(Genetic improvement, Feeds & Feeding, Production, by type of animal, Range Management)	16	4	-	4	8
<u>HORTICULTURE</u>					
(Tree Crop Production, Vegetable Production, Horticultural Techniques, Seed Nursery)	27	5	2	6	13

HYDRAULICS &  
INFRASTRUCTURE

(Hydraulics & Infrastructure,  
Civil Engineering, Farm  
Buildings, Soils Mechanics  
Hydrology, Technical  
Planning of Projects) 16 4 1 3 8

AGRICULTURAL MACHINERY 10 2 1 4 7

TOPOGRAPHY SCIENCES

(Geodesies, Topography,  
Photo-grammetry, Land  
Registration). 14 - - - -

FOOD TECHNOLOGY

(Chemical Engineering,  
Analytical Chemistry,  
Extraction Technology,  
Stabilisation Technology,  
Food Microbiology &  
Preserves, Quality  
Centrals & Standards,  
Technical Laboratory  
Assistants) 34 4 8 4 16

HUMAN NUTRITION

(Human Nutrition, Home  
Economics) 8 1 - 3 4

VETERINARY SCIENCES

(Anatomy, Physiology,  
Pharmacology & Toxicology:  
Contagious Diseases). 18 7 1 5 13

VETERINARY MEDICINE

(Parasitology, Reproduction,  
Internal Medicine & Surgery  
Avian Diseases). 25 4 - 9 13

HYGIENE & INSPECTION  
OF ANIMAL PRODUCTS

(Histology & Pathological  
Anatomy: Meat Inspection) 10 - - 4 4

SOCIAL SCIENCES

(Economics & Development, Accounting & Management, Rural Institutions, Rural Sociology, Economic Geography)	18	1	1	6	8
<u>"STAGES"</u>	4	-	-	1	1
English training	10	-	2	1	3

ECOLE NATIONALE  
D'AGRICULTURE DE MEKNES

(Basic Sciences, Environmental Sciences, Crop Production, Animal Production, Infrastructure & Technology, Social Sciences & Stages)	40	5	-	10	15
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FORESTRY - ENFI

(Forest resources, forest products, forest inventory, silvaculture)	12	5	-	-	5
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GRAND TOTAL	400	65	17	83	165
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F - Principal Changes Made by the Amendment

The 1983 mid-project evaluation endorsed the basic soundness of the project design. It recommends extension (and funding) of the LOP to 10 years. It also made a number of detailed recommendations and suggestions for inclusion of new or expanded activities in this amendment (see Agronomic Institute Project - Project Evaluation Summary, January 1984). USAID has examined each of these suggestions and has adopted some (but not all) of the suggestions. Evaluation recommendations which are not included in this amendment are those not considered central to the project purpose or not cost-effective. The changes to the project design made to the project by this Amendment are as follows:

1. Phase Down of Special Assistance to Agadir Campus of IAV

A major activity during the early years of the Project has been to especially targeted technical and commodity assistance to the IAV new horticultural campus at Agadir. Two of the contractors' senior scientists (total 5) are currently assigned to Agadir. The major items of commodity assistance in the current Project (\$300,000) was for start-up equipment for Agadir. These commodities have been procured and are in use. The Agadir complex started operation in the fall of 1980. Progress has been remarkable and 2nd and 3rd cycle teaching and research have been initiated. However, under the project amendment, the special status of assistance to Agadir will be de-emphasized. Assistance to Agadir will be continued, particularly in the area of faculty development, but on a need basis and as part of the overall implementation of the project. The Agadir campus also needs, as does the rest of IAV, assistance in the area of documentation and computer facilities - see below.

2. Changes in Technical Assistance Staffing Plan

Limitation of Junior Scientist Positions: The Evaluation recommended additional junior scientists preferably at the "all but dissertation" or new post-doctoral level be added to the project. The original project paper called for 9 person years of junior scientists over the first five years. Nevertheless, because the cost-effectiveness of the junior scientists to the institution building goals of the project is in USAID's view relatively low, in comparison to other project needs; this amendment continues, but reduces the number of person years of junior scientists for the entire 10 years of the revised projects to 7.

Increase in Resident Senior Scientists: The original PP projected only 3 resident senior scientists in the 5th year of the project. There are currently 5 in the 4th year. The PP Amendment on the recommendations of the Evaluation, maintains the level of 5 until the 7th year of the Project, after which the numbers are steadily reduced. The work load of the resident senior scientists is, and will remain, very heavy. The selection and orientation of participants, counseling ever-increasing numbers of returned faculty on the conduct of their in-country research and teaching and 3rd cycle student advising, are major activities of senior scientists. They contribute in essential ways to institutional development goals of the project.

Increased TDY Services: In order to further improve the range of in-country supervision, and to provide for other institution building activities, some additional months of consultant services are included under the project amendment. Consultants will be in the areas of educational administration, research/experiment station development, multidisciplinary programs, curriculum development and the like. Consultants will be drawn from U.S. Universities involved in the project, and from AID centrally-funded agricultural and multisectoral development projects. Such consultants, will also serve as members of doctoral defense committees at IAV as faculty participants finish their research and defend their dissertations. Consultant funds will also be utilized to provide partial assistance to U.S. faculty to come to IAV as Visiting Professors when on sabbatical leave from their U.S. university. These funds will not be used for salary but for assistance with cost of travel and housing. These activities on increased TDY services are also aimed at increasing linkages between IAV and other U.S. universities.

### 3. Change in Participant Training

No major change is made by this Amendment to the Participant Training Program, which is one of the more innovative features of this project, and which has been particularly successful. The following additions to the Project are made:

Short-Term Training: The Evaluation recommended continuation and expansion of short-term participant training (3 weeks to 6 months) for administrators of IAV, ENA and ENFI, and for faculty who have not had the opportunity to go to the United States for long-term training. The short-term training will continue the modest 6 month "sabbatical" programs for senior faculty, which were initiated in FY'83. Short-term training will also permit improved IAV supervision of its students and faculty in the U.S., and monitoring of their progress by senior IAV faculty and administrators. Attendance at short courses and special programs, including those given by International Centers, will also be included under short-term training. The establishment of departmental linkages to U.S. universities and other centers of research and training will also be facilitated under this enhanced short-term training.

Third Cycle Training: The purpose of IAV's Third Cycle Program is to train the technicians and managers needed by Moroccan agriculture at the M.S. level. The third cycle program has been conducted primarily by 5th year training abroad, including in the United States, and a sixth year back in Morocco working on thesis research. In 1979 the IAV began to offer 5th year course work in Soil Science - as a result of prior AID assistance. As its trained faculty comes on stream, IAV will increasingly teach its 5th year students in Morocco. IAV estimates that by FY'88, it will be able to conduct most, if not all, third cycle training with its own faculty. In the meantime, IAV faces a major institutional development squeeze. IAV is stripping the ranks of its mid-level faculty to send them to the U.S. for long term doctoral training and making a major effort to allow those that have returned sufficient release time from teaching, so

that they can complete their dissertation research in a timely manner. If this young faculty is also required to take on the responsibility for starting new curricula at the third cycle level, it will delay the implementation of the faculty development goals of the project, and prolong the need for U.S. assistance in third cycle training.

The original PP projected 70 third cycle departures in the first five years of the project. In fact, 102 third cycle students have been sent in the first 4 years of the project, or about 25 each year. The increase in the size of IAV's third cycle program since 1979, and at the same time as 50 or more of IAV's faculty were in the U.S., created the need for this increase in third cycle training. The third cycle returnees have gone on to careers in agriculture in Morocco. Many of the most valued counterparts in AID's other agriculture sector projects are former third cycle participants. Moreover, about 40% of the U.S. trained third cycle students have been recruited by IAV for its own faculty - an astonishing record, since IAV has recruited less than 10% of the total third cycle graduates. Thus, the third cycle program has contributed both directly and indirectly to the institution-building goals of the project and to the USAID program in agriculture.

The Evaluation recommended continuation of the third cycle program. By this Amendment, a further 50 third cycle students will be sent to the United States with the last batch of 10 to depart in July 1986.

#### 4. Changes in Commodity Inputs

Commodities, principally scientific equipment, have been an important but minor part of the project. The Evaluation made some major recommendations for increasing commodity inputs to the Project both for those traditional commodity inputs and also for major new commodity support for the Documentation Center and Computing facilities.

Increased Support for Documentation Center: The need for a modern, functioning documentation center in support of the teaching and research mission of IAV was heavily emphasized by an FAO Evaluation in 1980 as well as by the AID 1983 Evaluation 1/. To date modest support of \$50,000 has been provided under the Project to IAV's Documentation Center. Since the project was designed, this Center has been designated as the National Agriculture Library 2/. A faculty participant has been trained in library science, and is currently setting up an expanded information system. A computer has been purchased with IAV and project funds.

However, the Documentation Center is inadequate in the range and kinds of of hard copy, microform and other teaching materials that it can supply to students. The library is equally inadequate to support the current science information needs of the faculty and third cycle students who are working on dissertation and thesis research. As Dr. Deprosopo of the Department of Library Science at Rutgers University has pointed out the success of the project "has really helped create the IAV information crisis. In particular, the shift from the french educational approach to the US approach has placed a great strain on the need for information support. Student and faculty research are heavily dependent on up to date technical information. Without such information, the impact of this research will become problematic."3/.

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1/ Rapport de mission au Centre de Documentation Agricole de l'Institut Agronomique et Veterinaire Hassan II. Projet PNUD/FAO/MOR/78/005, 16-14 juillet 1980 par C. Gasne

2/ As a consequence the Documentation Center has made considerable progress in development of computer data bases. The Center has not only been designated as the National Depository Library for FAO publications, but also as the National Center for CARIS (current Agricultural Research Information System) and national input center for AGRIS (Agricultural Research Information System). It is linked to international data bases through a shared (with CND) dedicated line with the European Space Agency at Frascati, Rome.

3/ Trip Report, April 1982.

Maintaining adequate and current holdings of the vast range of scientific disciplinary publications which pour out every month to the international community on the agricultural sciences is a major undertaking. The magnitude of the holding and acquisition needs of the IAV Documentation Center can be variously estimated. For example, if the widely used Clapp-Jordan formula is applied a minimum of 1.4m holdings which might cost (at \$30/holding) \$43.6 million is indicated. The 1980 UNESCO standards for LDC university level library collections gives a more modest estimate of 225,000 documents and a cost of \$6.7 million with an annual new acquisition need of 11,250 documents.

IAV recognizes that it will have to devote about 7-10% of its future annual budgets to the maintenance of an adequate teaching - research library. However, it faces a major problem in creating the needed stock of core hard copy documents and back issues of journals which are the basis for building a sustained collection. The need that can be addressed by the project amendment is to provide this core, or the capacity to acquire it, at low cost. The solution is to invest in modern microfiche equipment, in indispensable hard copy acquisition and in ancillary on-line information retrieval equipment. A proposed budget for this purpose has been developed by the Documentation Center after consultation with the National Documentation Center and trained Moroccan librarians at the National Library School:

	<u>\$ thousand</u>
1) Microfiche	205
Equipment      125	
Collections    70	
2) Core Hard Copy	290
Reference foots   60	
Primary Journals 70	
Xerox copies of Journal	
articles     60	
Books            100	
3) On line information retrieval	60
<u>Total</u>	525

In summary, investment in the IAV Documentation Center is a major need that was unaddressed by the original project paper. The establishment of a functioning National Agricultural Library will be of major importance not only to this project but also to the entire USAID sector strategy. This amendment therefore reserves an additional \$525,000 for the Documentation Center. However, USAID will require IAV to submit a Procurement Plan, with detailed commodity specifications, for its approval prior to the incurrance of expenditures for the Documentation Center.

Support for Computing Facilities: To date, no direct assistance has been provided to IAV or its "coordinate campuses" - ENA and ENFI - for computing facilities. A few departments have purchased IBM PCs at project expense from doctoral research support funds.

IAV/Rabat has a small Computer Center which has been developed and staffed through Belgian Assistance. It is quite clear that this small facility is already considerably over burdened. As increasing numbers of third cycle and faculty participants return from the U.S., the computation crunch will become even more severe. At the present time, this lack of sufficient hard and soft ware, as well as insufficient programming and entry staff, is a key constraint to doctoral-level faculty participants who are carrying out their dissertation research in Morocco. In addition, there are no computer facilities available at ENA, ENFI or IAV/Agadir. Given geographical separation, there is need for additional such facilities at least at ENA and at Agadir.

The Evaluation Report strongly recommended including commodity assistance for the strengthening of Computing Facilities in this amendment. Consequently, in early 1984, a collaborative Needs Assessment was conducted by the USAID Project Manager, the University of Minnesota Team Leader and a nine person Working Group of Moroccan computer specialists 1/. This group identified three high priority needs for the computing capabilities of IAV:

- 1) Expansion of computer based teaching
- 2) Improvement of Data base and analysis capability for research and development studies.

1/ M. Taousse, Head of the Department of Applied Math, IAV; M. Ait Kadi, Head of Department of Hydrology, IAV; M. Peroy, Head of the Computer Center National Institute of Mines; M. Ben Moussa, Head of Computing Center, National Office of Phosphates; M. Chouk Himane, Head of Computing Services, Ministry of Post, Telegraph and Telephones; M. Eddine, Head of the Computing Center, Office of Petroleum Research; M. Azzedine, Staff Member, Computing Section, National Institut of Applied Economics and Statistics; M. Bourlifa, Technical Representative IBM, Morocco; M. Squalli, Technical Representative, Honeywell Bull, Morocco.

3) Modernization and streamlining of IAV's management systems (student record and accounting).

The current central computer facility is a Honeywell Bull (mini-6) with 4 terminals and a memory of 252 K. It is primarily being used for teaching exercises, notably in courses of Hydrology, Topography and Regional Development. The limited number of terminals and of machine capacity means that 5 or more students have to work as a group at 1 terminal. Even though it was installed as recently as 1981, the existing central computing equipment is seriously already overloaded.

The Working Group came to the conclusion that IAV needs a central computer system with a minimum central memory capacity of at least 2 Megabytes and that such a system could reasonably assure IAV's needs for the rest of this decade. By way of comparison, the Moroccan School of Mines with only 300 students and 40 faculty members, already has a 1 megabyte system - IAV has some 2300 students and 350 faculty members. The central memory would be supplied by data storage on magnetic disks of 40 megabytes (with 2 disk drives) and 1 tape unit with 9 heads. Additional equipment of a plotter and high speed printer (650 lines per minute) would be needed.

To permit adequate access to the facility, 20 terminals would be required. This is a minimum need in light of the some 470 4th year students engaged in special projects, the 430 students per year in the computer science course at IAV and the 300 students per year doing MS research and data analysis - as well as faculty members engaged in research. This central facility would be supported by 3 micro-computers at Agadir, Meknes and Sale which could cover some 75% of the computing needs of those facilities. The remainder would have to be done directly at the central facility in Rabat (telephone linkage is not yet practical in Morocco).

The foreign exchange cost of this needed computing equipment is estimated at \$500,000 and would be supplied by the project. Operating costs (personnel, software, etc.) and building costs would be assured by IAV. The success that the project has had in creating a demand by faculty and students for modern computer based teaching and data manipulation is currently being restricted by the lack of computer capacity at IAV. Computer needs were not foreseen at the time of the 1979 project design, but an overwhelming case can be made for the inclusion of this new element in this project amendment and as part of the creation of a 'modern' College of Agriculture.

General Teaching and Research Commodity Support: The Evaluation Report recommended that commodity support for the resident TA team and general support of IAV teaching and research be modestly expanded, particularly for assistance to central facilities and foreign exchange costs. The Evaluation also suggested that funds be used for competitive grants in order to stimulate Departmental budgeting and research proposal writing as part of the institution building activities of the project.

This amendment provides for continuation of the relative minor commodity line for general teaching and research support at an average of about \$80 thousand per year. This commodity support is only about 3% of total project cost but provides a minimum of necessary support to institution building goals of the project. Procedures for disbursement of those teaching and research funds have already been established in writing by IAV and submitted to USAID for approval. The uses of funds will be monitored through the Annual Review and other mechanisms. This amendment does not, however, propose to fund "Competitive Grants" or other new and separate activities in the area of commodity support to the Institute, as was suggested by the Evaluation.

##### 5. Other Changes

The Evaluation of 1983 dwelt at some length on the desirability of broadening and strengthening IAV's linkages with the best U.S. land grant universities and other centers of excellence at both the overall institutional level and at the Department level. The project has made impressive gains in this direction, but more could be done. The placement of participants at U.S. universities other than the Contractor, the active involvement of senior U.S. faculty from the best programs in the United States as doctoral advisors and the building of strong linkages to the whole of U.S. agricultural science are activities which were included in the PP and were to be undertaken by the "Partnership". The concept behind the Partnership was to create strong but informal ties between the wide range of institutions and individuals cooperating in the project and to avoid the creating of a cumbersome and expensive administrative apparatus. In fact the Partnership has never been funded as such. The Amendment, in response to the Evaluation recommendations, has increased Short Term Participant Training, the TDY consultants and on campus support staff to facilitate the wider placement of participants and development of linkages between U.S. agricultural science and IAV. However, the Amendment has not made other specific provisions for funding the Partnership for such events as an annual meeting of participating individuals and institutions. Under the Collaborative Assistance mode of project implementation, it would be feasible for IAV to propose to USAID, for its approval, the use of project funds to support specific, limited activities of a Partnership nature, which aimed at enhancing U.S.-Moroccan institutional linkages in agricultural teaching, research and extension, which are a desired part of the project. These activities would be funded from the existing budget lines as appropriate., but would require IAV and the U.S. contractors to make corresponding economies elsewhere in the project.

#### IV - PROJECT DESCRIPTION

This Project, as amended, is a ten-year institution building activity, starting with Project authorization in April 1980. The project provides resident and TDY Technical Assistance, participant training and commodities, to support the development of IAV and two associated agricultural schools. Apart from specific changes mentioned in the previous section, the design is as described in the Project Paper. The project description of this amendment is therefore brief.

##### A - Technical Assistance

###### 1. Resident Staff

Resident T.A. staff will provide support to returned Moroccan doctoral students and to the third cycle program. They will assist in institution building activities at IAV. In the latter years of this project, the principal function of resident staff is to provide support for in-country dissertation research. Senior scientists will be individuals having a PhD and teaching/research/extension experience at a U.S. land-grant university. Of the resident staff at least 50% will be tenured or on tenure track at the contracting university. (Currently, three of the five senior scientists are on the university's staff). The project staffing pattern is presented in Table IV-1.

Resident staff will be phased down starting in FY'87.

###### 2. TDY Staff

The purpose of TDY staff is three-fold: (1) to provide support to the individual student from his/her advisor while working on his/her dissertation; (2) to provide support to the development of faculty in a specific Department by participating in third-cycle teaching, offering advanced seminars and providing assistance to development of research programs, curriculum, etc; and (3) to provide expertise in specific institution building areas such as administration, station management, and library development.

It is envisioned that each doctoral student will need up to three visits or two months (60 days) of TDY advisor time to help design research, assist in its implementation, in data analysis, and for participation of the final dissertation defense. Short-term staffing will also seek to provide continuity by involvement of U.S.-based scientists over a period of several years to assist in the second objective above. These staff members will also assist in selection of new participants and their placement in U.S. graduate programs. Under item 2 above both regular TDY and visiting sabbatical Professors (6-12 months) will be funded. In the case of visiting U.S. sabbatical Professors, project funds will be utilized for travel and housing but not for salary and other allowances. Proposal for sabbatical visits will be included in the Annual Work Plan and written implementation procedures submitted to USAID for prior approval.

TABLE IV-1 PHYSICAL FLOWS PROJECT INPUTS: TECHNICAL ASSISTANCE (FY BASIS)

	Actual			Projected		Planned				TOTAL	
	1981	1982	1983	1984	1985	1986	1987	1988	1989		1990
<u>Resident Staff (Person Years)</u>											
Senior Scientists	4	4	4	5	5	5	4	4	2	1	38
Junior Scientists	-	1	1	1	1	1	1	1	-	-	7
<u>TDY Staff (No Visits)</u>											
Advisors	6	15	27	40	50	62	60	55	55	50	420
Consultants	3	3	3	6	5	5	3	3	3	1	35
<u>Support Staff (Person Years)</u>											
On Campus	2.5	3.5	3.5	4	4.5	4.5	4	3.5	2.5	2.5	35
In Country	2	2.5	2.5	2.5	2.5	2.5	2	2	2	1	21.5

1) Includes Period April-September 1980

## B - Participant Training

Participant training will be of three kinds: (1) third cycle (5th year) training; (2) faculty training; and (3) short-term training. The physical flows of participants are summarized in Table IV-2. International travel costs for third cycle, faculty and short-term participant training will be funded by the GOM. The U.S. University contractor is expected to place more than 50% of all faculty participants sent under this amendment at other U.S. Universities. For this reason significant on campus training support is provided. The resident team will maintain current Graduate School bulletins from as wide a range of U.S. universities as possible and counsel faculty on their choice of applicators to U.S. graduate schools.

### 1. Third Cycle Training

The primary purpose of third cycle training at IAV is to train needed managers and technicians at the Master's level. It also creates a pool of students with proven performance at the graduate level, from whom IAV can identify future faculty members for recruitment and eventual training in doctoral programs.

The basic format is to provide 12-15 months of graduate level training in the U.S. and to return students to Morocco for the 6th year thesis research. The University of Minnesota, having programmed over 170 third-cycle students since 1972, is already very familiar with this program. The program has undergone steady improvement. There have been two principal but interrelated problems: the early identification and selection of students; and preparation for departure, notably, English language training. These problems are largely resolved. IAV is now committed to early identification of students and is strengthening its English teaching ability with new staff and facilities (audiovisual labs, etc.). Further improvement in these areas will be expected and will be monitored by USAID.

Third cycle training will be phased out in FY 87. The last third cycle students will depart in July 1986 and all will have returned by the end of FY 87.

### 2. Faculty Training

The normal procedure for faculty doctoral training (unchanged from the original PP) will be as follows:

a. The IAV will nominate young faculty (assistants) for PhD programs in the U.S. They will normally have served at least 2 years as assistants. Some of them will have already been to the U.S. as third-cycle students.

b. The project will seek acceptance by graduate schools at appropriate U.S. universities and identify scientists in the U.S. to become the student's doctoral advisor. The resident staff will be critically involved in this process. Students will not leave Morocco until acceptance by an appropriate graduate school has been obtained.

c. Students will come to the U.S., complete course work determined necessary and sufficient in preparation for the granting of an IAV doctorate on completion of dissertation research, and write up. A total of three years of U.S. study will be the maximum per participant.

d. Upon completion of all course work requirements, the student will return to Morocco to conduct dissertation research.

e. In order to carry out the research, the student - together with the U.S. advisor and the resident staff in Morocco - shall identify and present to IAV a dissertation proposal. The proposal shall address not only the scientific interests, training value and practicality, but shall also emphasize the importance to Moroccan agriculture of the research and possibility that research findings could be extended to Moroccan farmers.

f. The student and the U.S. advisor shall establish an overall budget for the conduct of this research. Upon approval of this budget by IAV, the contractor's resident team leader and the IAV department head, part of the research costs incurred by IAV, but not to exceed \$10,000 per student, will be funded by the project. These research support funds will be channelled through IAV's own budget management system. USAID has determined that dissertation research support is necessary for ensuring that quality and timely research is conducted. About 70% of the funds are being used for purchase of equipment for IAV from the U.S. to complement existing research facilities. The USAID has (April, 1983) established new guidelines and monitoring procedures for the use of these funds.

This research support:

(1) Provides a mechanism for students to gain experience in budgeting and administration and is a means of ensuring careful planning, reflection and discussion among the student, IAV and the U.S. advisor and the resident team on the research process.

(2) Ensures timely completion of the research within a two-year time frame. IAV will be providing considerable support to the student (salary, laboratory & office space and equipment, secretarial, laboratory assistants, etc.) However, IAV can be expected to have difficulty in providing small but critical items of research support which involve dollar costs, due to budget constraints, foreign exchange availability, etc., and limited in-country access to certain needed items of equipment and supplies. Experience to date has been that 70 percent of these research costs have been used for U.S. scientific equipment not otherwise available at IAV.

g. IAV shall provide sufficient time to the participant to conduct his/her research. The teaching load shall be determined at the department level at IAV. IAV shall also provide for necessary laboratory space, transportation and other support needed to complete the research. The objective shall be to complete the research (data collection, analysis and writing) within two and a half years for participants returning before the end of FY 1985, and two years thereafter.

h. Upon completion of the research, the participant, in consultation with his advisor, shall schedule a final oral exam at IAV. The committee will be composed of at least five persons. The U.S. dissertation advisor shall be the chairman of the dissertation defense committee. The committee shall include at least one other holder of a U.S. PhD and include one or more members of the resident U.S. team when appropriate, and senior faculty of IAV with doctoral degrees. The U.S. faculty shall apply the academic standards of their own universities in casting their vote. This dissertation shall be available in, and the examination shall be conducted in English, unless otherwise agreeable to the advisor.

i. Upon successful completion of the examination, the candidate shall be awarded by IAV the Doctorat es Sciences en Sciences Agronomique (Doctor of Agricultural Science) or en Medicine Veterinaire (Doctor of Veterinary Science).

IAV shall provide opportunity for the faculty members after completion of the doctorate, to return to the United States to prepare with the U.S. advisor a scientific publication (it is expected that this will require at least one month and up to two). This will provide necessary incentive to the U.S. faculty members to make the heavy investment of time in the student, and will provide the participant the opportunity to attend a professional meeting, design a post-doctoral research project, and solidify or expand contacts with international experts in his/her field, including at international Centers. It is also expected that this visit will be used by the IAV faculty member to develop other professional skills, which may have been ignored or short-changed during his/her doctoral training. 1/Particular attention will be given to inclusion of special study, short courses and other opportunities in such matters as teaching improvement and evaluation, curriculum design, extension methods and study of U.S. agricultural extension systems, and administration of departments and educational programs. The faculty members will be required to develop a Study Tour proposal for this return visit, for prior approval by IAV. Detailed written guidelines for these proposals and their funding will be prepared by IAV for USAID approval. Costs to the project shall be no greater than those normally allowable to short term participants under Handbook 10.

M.S. training in the United States for IAV faculty will also be provided on a selected basis, principally for faculty who only have a four-year graduate degree in agriculture or related fields, who have taught for two years and have completed the Assistant exam. 1/

### 3. Short-Term Training

Provision is made for short-term training programs in the U.S. and third countries for existing IAV faculty and administrators. From time to time, it will be desirable for IAV faculty, particularly those not being trained under the project doctoral program, to visit U.S. universities, attend short courses, workshops and the like. Short-term training includes participation in courses at relevant International Research Centers or other third-country institutions, as well as at U.S. public and private sector institutions.

1/ Project funds shall not be used in support of specific courses or activities related to the granting of a U.S. degree in cases where a Moroccan degree is anticipated.

Short-term training includes the "mini sabbatic" program for senior IAV to undertake a 6 month study leave in a major U.S. university. Four such programs are planned for each year, 1985 to 1990, in addition to 4 person months of other short-term training in each of those years.

C - Commodities

Commodities are primarily scientific equipment, vehicles and specialized commodities for development of computing capability and documentation center. (For details see Financial Plan below).

Vehicle procurement is increased from 7 in the original PP to 13, to allow for replacement of vehicles during the Ten Year LOP.

The original PP authorized \$50,000 for Library Development at IAV. There is a great need for considerable improvement in the materials available at the libraries at IAV, ENA and ENFI. Under this amendment, a total of \$575,000 has been reserved for documentation center and library development. Disbursement will be contingent on prior USAID approval of a detailed commodity procurement plan. Likewise, \$500,000 has been reserved for development of the IAV Computer Center, and disbursement will be also contingent on prior USAID approval of a procurement plan.

TABLE IV-2 - PARTICIPANT TRAINING: PERSONS PER YEAR (FY BASIS)

	Actual			Projected				Planned				TOTAL
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990		
1) <u>Third Cycle Returns</u>	25	25	25	27	25	15	10	-	-	-	152	
<u>Faculty Doctoral</u>												
2) <u>Departures</u>	33	13	19	20	15	15	15	10	-	-	140	
<u>Returns to Morocco</u>	7	14	7	16	23	25	25	23	-	-	140	
<u>Completions</u>	-	-	-	6	14	18	23	24	25	30	140	
<u>Faculty - MS (2 years)</u>	9	2	6	2	2	2	2	-	-	-	25	
<u>Departures</u>												
<u>Short Term (Person Months)</u>	6	2	10	16	28	28	28	28	28	28	202	

1) Third Cycle students actually depart in July of previous fiscal year. Most return in September of FY shown; a few in December of following year.

2) Most departures in July of FY shown; some may depart in following September or January.

V - FINANCIAL PLAN

A - AID Costs

AID costs have been estimated on the basis of data on number of staff, participants and commodities contained in the Project Description. These costs are summarized in Table V-1. Additional cost details are presented in Tables V-2 through V-6.

The total AID cost of the ten-year Project is \$28.5 million. Principal items in the budget are technical assistance (39%) and participant training (50%). Commodities account for 10%. Costs for FY 81 through FY 83 are actual costs. Costs for FY 1984 are based on the approved budget for FY 1984 for the current project. Costs for FY 1985-1990 have been adjusted for inflation; by 7% for FY 85 and 6% for 1986-1990 (State 015265 of 1983).

Technical assistance costs include: salaries and allowances of resident staff, on campus and in-country support staff salaries and other direct costs (e.g. pre-departure, French language training for resident staff and office supplies).

Indirect costs have been estimated on a modified total cost basis, in conformity with OMB ruling.

The Financial Plan for the out years has been estimated on the basis of detailed information on actual expenditures and costs for the first three years of the project on a line-by-line basis. These costs are judged to be reliable and realistic. Contingency allowances in the project have been estimated at 15% annually for commodity procurement and 10% for participant training and technician services.

Funds for project evaluations will be managed by USAID. A limited amount of USAID invitational travel will be funded under the project. Invitational travel will be approved by the USAID Project Officer on a case-by-case basis, subject to the applicable regulations in AID HB10, Paragraphs 15c 6-7.

The ten-year LOP commences with original project authorization in April, 1980. This PP Amendment extends the PACD to April, 1990. In the detailed tables of the Financial Plan (V-1 to V-4) relatively minor expenditures incurred in the end of FY '80 (i.e. after project authorization and project implementation initiation in April and June, 1980 respectively) have been included with FY '81 actual expenditures. The last year of the project is shown as FY '90. It is clearly understood that the PACD is April, 1990.

TABLE V-1 AGRONOMIC INSTITUTE: SUMMARY LIFE OF PROJECT COSTS BY FISCAL YEAR (\$000)

	Actual		Projected										TOTAL
	1)	2)	1983	1984	1985	1986	1987	1988	1989	1990			
<u>Technical Assistance</u>	627	800	800	1153	1222	1321	1119	1087	788	633	9426		
<u>Participant Training</u>	1136	1398	1226	1660	2079	1920	1802	844	122	83	12270		
<u>Commodities</u>	209	168	233	115	640	541	299	184	37	10	2437		
<u>Evaluation</u>	-	-	70	-	-	60	-	60	-	-	190		
<u>Inflation</u>	-	-	-	-	271	487	638	587	331	312	2626		
TOTAL	1972	2242	2329	2929	4212	4329	3858	2762	1278	1038	26949		

- 1) Includes expenditures in FY 1983 incurred from June to September
- 2) Estimated
- 3) Approved Budget for FY 84
- 4) Inflation calculated at 7% 1985 and 6% 1986 to 1990.

TABLE V 2 - AGRONOMIC INSTITUTE: DETAILS OF TECHNICAL ASSISTANCE COSTS (FISCAL YEARS)

	(5000)										TOTAL
	Actual			Planned		Projected					
	1) 1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
<u>Salaries and Wages</u>											
<u>Resident Staff</u>	185	202	220	285	285	285	231	231	108	54	2086
<u>TDY Staff</u>	-	35	74	130	150	186	180	165	165	150	1235
<u>Project Support Staff</u>											
<u>On Campus</u>	75	78	84	96	108	108	96	84	60	60	849
<u>In Country</u>	23	18	15	25	25	25	20	20	20	10	201
<u>Fringe Benefits</u>	47	65	90	131	125	133	116	110	77	61	955
<u>French Language Training</u>	28	1	-	24	24	30	-	30	-	-	137
<u>Allowances</u>	68	41	27	76	76	76	60	60	30	15	529
<u>Travel &amp; Transportation</u>											
1. Resident Staff	77	71	87	96	90	85	60	50	30	20	666
2. TDY Staff	21	36	67	129	150	186	180	165	165	150	1249
<u>Other Direct Costs</u>	13	17	31	30	30	30	30	30	30	30	271
<u>Indirect Costs</u>	90	112	105	131	159	177	146	142	103	83	1248
TOTAL	627	676	800	1153	1222	1321	1119	1087	788	633	9426

1) Includes expenditures June-September 1980

TABLE V-3 - AGRONOMIC INSTITUTE: DETAILS OF PARTICIPANTS TRAINING COSTS (FISCAL YEARS)  
(\$000)

	Actual			Planned	Projected						TOTAL
	4) 1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
<u>Third Cycle</u>	626	940	427	559	559	330	220	-	-	-	3661
<u>Faculty</u>											
<u>Doctoral</u> 1)	497	451	659	555	1198	1350	1350	675	-	-	7115
<u>M.S.</u>		-	-	-	144	72	72	72	72	36	468
<u>Short Term</u>	13	7	22	44	42	42	42	42	42	42	338
2) <u>Indirect Cost Recovery</u>	-	-	118	122	136	126	118	55	8	5	688
3) TOTAL	1136	1398	1226	1660	2079	1920	1802	844	122	83	12270

- 1) M.S. included with Doctoral participants FY 81-84
- 2) Indirect cost for FY 81 and 82 on Salaries and Wage Basis
- 3) Details may not add due to rounding
- 4) Includes expenditures June-September 1980.

TABLE V-4 - DETAILS OF COMMODITY COST (FISCAL YEARS)  
(\$1000)

	Actual			Planned		Projected					TOTAL
	1981 <sup>2)</sup>	1982	1983	1984	1985	1986	1987	1988	1989	1990	
<sup>1)</sup> <u>Agadir Start-Up</u>	175	103	47	-	-	-	-	-	-	-	325
<u>Computer Center Development</u>	-	-	-	-	250	150	50	50	-	-	500
<u>Documentation Center</u>	7	1	42	-	225	200	100	-	-	-	575
<u>Teaching and Research Support</u>	22	46	90	100	135	135	135	95	35	10	803
<u>Vehicles</u>	5	18	31	10	-	30	-	30	-	-	124
<u>Indirect Cost Recovery (5%)</u>	-	-	23	6	30	26	14	9	2	-	110
<b>TOTAL</b>	209	168	233	116	640	541	299	184	37	10	2437

1) Actual expenditures

2) Includes expenditures June-September 1980

B - GOM Costs

Based on 1982-83 figures, the GOM's annual contribution to the cost of operating the IAV is \$5.8 million (\$1.00 - 6.5DH). With the present GOM budget crisis, it is unlikely that IAV's budget will increase in the near term.

Therefore, the estimated total GOM contribution to IAV for the Ten-Year Life of the project is \$58 million. Obviously, much of the GOM financial support to IAV is for the regular annual budget, and would continue with or without AID's assistance.

Annual contributions to IAV by other donors are running about \$2 million (see Table V-6). It is anticipated that this level of input will decline toward the end of the project, as foreign teachers are replaced by Moroccan personnel. We therefore, estimate the ten-year contribution by other donors at \$15 million.

An estimate of the GOM's contribution to direct project costs is \$10.3 million over the ten-year life of the project (about \$10.8 million including inflation). This estimate is based on salaries paid by IAV to its faculty, provision of office space to IAV faculty and T.A. personnel, general services (heat, light, etc.), support services (typing, transportation) and direct costs of research by students. This is felt to be a conservative estimate. Details are as follows:

	<u>Life of Project</u> <u>(\$000)</u>
Direct Support to Technical Assistance Personnel 3)	1,006
Salaries of IAV Faculty 1)	8,748
Direct Support to IAV Faculty Research 2)	484
Evaluation	50
Inflation	582
	<hr/>
Total	10,870

- 1) Includes faculty salaries paid while engaged in course work and conducting research estimated at \$14,500 per year including fringe benefits.
- 2) For two years after return from U.S. at \$7,000/year.
- 3) Estimated at \$20,000 per year for resident staff (\$3,000 per year for junior staff and \$1,000 per month of TDY staff).

C - Total Project Costs

Foreign Exchange and Local Currency Costs of AID, GOM and total project costs are summarized in Tables V-6 and V-7.

TABLE V-5

CONTRIBUTIONS OF FOREIGN  
DONORS TO IAV IN 1983

DONOR	TOTAL PROJECT FUNDS IN US DOLLARS	TIME SPAN OF PROJECT	NATURE OF AID GIVEN & RECIPIENT INSTITUTION
USAID 608-0160 Institution Building	\$9,750,000.00	1980-1985	5 advisors, U.S. training. 15-25 5th year students, 15-25 faculty participants per yr. Commodity support.
Institutional agreement University Lavayl (Canada)	No funds at present	1983-?	3 participants/year. 6 visiting professors.
Vet. Med. W. Germany	\$ 60,000.00	1983-1985	Funds to finalize 5 participants in Vet. Med.
Ag. Technology W. Germany	?	1981-1984	5 experts, 5 participants in Agr. Engineering.
Aid to IAV Belgium	\$ 40,000.00	Will end in 1984	For logistic support only. 3 participants, 20 visiting professors, 12 experts.
United Kingdom	?	1983-?	2 participants/year 3 visiting professors
Sweden	?	1983-?	1 visiting professor, 1 participant

France		1983-?	19 civil experts, 14 VSNA (2 yrs.), 30 scholarships, 60 man months participants, 65 visiting professors.
	\$ 10,000.00		
	\$ 45,000.00		15 short visits of Moroccan staff logistic support, (chemical lab supplies...).
	\$ 15,000.00		Library.
<hr/>			
IFS	\$ 10,000.00/grant	1983	10 research grants. These are one time funds, must be applied for annually, awarded in competition with others.
<hr/>			
AIEA	\$ 8,000.00/grant	1983-?	4 researchers grants. These are one time funds, must be applied for annually, awarded in competition with others.
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CIHEAM		1983-?	6 scholarships, Italy - 2 , Spain -- 2 France - 2.
<hr/>			
NRSP	\$ 6,000.00	1983 1982-1985	Nederlands develop- ment project.
<hr/>			
UNESCO	\$ 3,000.00		4 visiting professors, 1 scientific course by Spanish ecologists.
	\$ 12,000.00		1 international course of soil microbiology.
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TABLE V-6 AGRONOMIC INSTITUTE: LOCAL CURRENCY EXPENDITURES ON AID CONTRIBUTION (\$000)

	1)										TOTAL
	Actual			Planned		Projected					
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
<u>Technical Assistance</u>	216	103	81	156	126	126	100	100	70	35	1013
<u>Participant Training</u>	25	46	29	-0	40	40	30	20	20	10	300
<u>Commodities</u>	12	16	33	-0	50	70	70	70	30	10	401
<u>Inflation</u>	-	-	-	-	15	38	48	59	50	30	240
TOTAL	153	165	143	236	231	274	248	249	170	85	1954

1)

VI - PROJECT IMPLEMENTATION

A - Project Implementation

The project will (excluding Evaluations) continue to be implemented by a single U.S. Title XII University, under a host country contract and in a Collaborative Assistance Mode. USAID and IAV desire the current contractor to continue to provide implementation services for the amendment. The issue of non-competitive procurement is addressed in The Action Memorandum for the Administrator from the Assistant Administrator, Near East.

Under Collaborative Assistance, the formal Annual Project Review between IAV, USAID and the U.S. Contractor is the principal mechanism for joint planning and flexible implementation of the project - as well as for evaluation (see below). IAV will submit an Annual Work Plan and Budget (and Projected Budget for the following year) at the beginning of each U.S. fiscal year for discussion at the Annual Review

B - Implementation Plan

<u>Date</u>	<u>Action</u>
<u>Actual</u>	
April, 1980	Project authorized.
June, 1980	Host country contract signed; Team in place.
July, 1980	Faculty participants and 25 third-cycle students depart for the U.S.
October, 1980	First Annual Review; Work Plan and Budget for FY'81 approved.
July, 1981	8 Faculty and 25 third-cycle students depart.
October, 1981	Second Annual Review; Work Plan and Budget for FY'82 approved.
January, 1982	First Annual Report (FY'81) received.
July, 1982	Faculty and 25 third-cycle students depart.
October, 1982	Third Annual Review; Work Plan and Budget for FY'83 approved.

February, 1983	Second Annual Report received.
July, 1983	Special Collaborative Evaluation.
July, 1983	24 Faculty and 25 third-cycle students depart.
November, 1983	Fourth Annual Review. FY'84 Work Plan and Budget approved.
January, 1984	Third Annual Report received.

Planned

March, 1984	PP Amendment submitted to AID/W.
March, 1984	Tracer Study completed.
March, 1984	PP Amendment approved. Grant Agreement amended. Contract Amendment initiated.
April, 1984	Host country contract amended.
July, 1984	Faculty and Third Cycle Participants depart.
October, 1984	Fifth Annual Review; FY'85 Work Plan and Budget approved.
January, 1985	Fourth Annual Report received.
May, 1985	Special Evaluation.
July, 1985	Resident staff phased out of Agadir. Faculty and Third-Cycle participants depart.
October, 1985	Sixth Annual Review; FY'86 Work Plan and Budget approved. Same Third-Cycle programs initiated at IAV.
January, 1986	Fifth Annual Report received.
July, 1986	Last Faculty participants depart. Third-cycle participants return.
October, 1986	Seventh Annual Review; FY'87 Work Plan and Budget approved.
January, 1987	Sixth Annual Report received.

October, 1987	Eight Annual Review; FY'88 Work Plan and Budget approved.
January, 1988	Seventh Annual Report received.
May, 1988	Special Evaluation.
October, 1988	Ninth Annual Review; FY'89 Work Plan and Budget approved. Last faculty participant returns.
January, 1989	Eight Annual Report received.
October, 1989	Tenth and Last Annual Review; FY'90 Work Plan and Budget approved.
January, 1990	Ninth Annual Report received.
April, 1990	Last resident staff leaves. Last faculty participant completes doctorat.
April, 1990	Final Report and project accounting initiated.

VII - EVALUATION PLAN (AMENDED).

The evaluation plan described below has the following broad objectives:

- (a) to determine that project purpose is being achieved;
- (b) to determine the appropriateness of project mechanisms in achieving the purpose;
- (c) to identify obstacles to achievements of project purpose and suggest remedial actions.

AID shall seek in all evaluation activities the collaboration and participation of other donors to IAV, as appropriate and feasible.

Evaluation activities will be aimed at determining:

- (a) the degree of achievement of training goals via academic and research training in the U.S. and the research experience of participants in Morocco;
- (b) the effectiveness and timeliness with which trained faculty participants become operational in their professional assignments at IAV and develop linkages with extension and research;
- (c) the extent to which project purpose has been achieved.

Specifically the following evaluations will be carried out:

A - Tracer Study of IAV Graduates (FY'84)

A critical measure of project success is the extent to which IAV students are continuing Moroccan agricultural development. In FY'83, IAV began to conduct a tracer study of all its graduates since the first graduating, class of 1972 to determine what activities they are now engaged in and the appropriateness of their training at IAV. The results of this study will be analyzed and presented to the USAID and the Contractor by March 1984.

B - Annual Reviews

As part of the collaborative assistance style of project implementation USAID, IAV and the University of Minnesota conduct an annual tripartite review of project performance and issues in October of each year. Three such reviews have been held. These reviews not only allow for flexible implementation and fine tuning of the project in terms of annual work plans and budgets, they also allow for open and frank discussion and monitoring of project performance. They have been useful, and provide a major means of project monitoring to the USAID.

C - Special Evaluations (FY'86 and '88)

An internal AID evaluation was conducted in April, 1982. A full scale special, collaborative evaluation of the project was conducted in June-July 1983. Two further special evaluations are scheduled for May, 1986 and May, 1988, focussing on assessment of institutional development and the

linkages of Moroccan teaching, research and extension institutions in which IAV is a critical component. Evaluation will be made of IAV's institutional maturity and the impact of the project on curriculum change and faculty participation in internal IAV decision-making on goals, objectives and priorities. These evaluations will also examine the extent that the Project is resulting in changes and improvements of the teaching program at IAV.

D - Evaluation Scopes of Work and Staffing

Evaluation activities will be carried out by selected USAID, IAV Contractor and independent personnel as specifically needed for each activity. Involvement of other donors to IAV will be sought. Scopes of work will be developed by the USAID in collaboration with IAV and the Contractor.

Where possible, IAV and the Contractor will undertake basic data collection needed for evaluation as part of IAV on on-going activities. It is believed that this evaluation plan will provide useful data and analysis on the process of institution-building and help to internalize this capacity within IAV, as well as providing a "case study" of institutional development useful to other AID Title XII activities.

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 1980 to FY 1990  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: JANUARY 1984

Project Title & Number: AGRONOMIC INSTITUTE (608-0160)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																																												
<p>Program or Sector Goal: The broader objective to which this project contributes: Increase in trained managers, technicians and scientists to staff programs and projects and formulate development policy to aid Moroccan agriculture in the implementation of a broad based participatory agricultural development program and aimed at increased output and employment.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> <li>1. IAV graduates in action jobs in public and private sectors, effective and with necessary job skills.</li> <li>2. IAV research and outreach effectively related to Moroccan agricultural development problems.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tracer study of IAV graduates (positions held, appropriateness of training received at IAV).</li> <li>2. Analysis of IAV research programs and extension activities (Annual Reports of IAV).</li> <li>3. Impact evaluation.</li> </ol>	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> <li>1. GOM provides incentives and job-related support to agricultural sector personnel.</li> </ol>																																												
<p>Project Purpose: To aid the institutional development of a "modern" college of agricultural development needs, with appropriate linkages to the rest of the technology delivery system and involving low-income farmers and herders.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status:</p> <ol style="list-style-type: none"> <li>1. Development of "modern" curriculum and departmental research programs under way.</li> <li>2. IAV doctoral system working.</li> <li>3. Limited reliance on foreign technicians and faculty (U.S. and other donors) in teaching.</li> <li>4. Trained faculty engaged in teaching research and extension.</li> </ol>	<ol style="list-style-type: none"> <li>1. Changes since 1979 in curriculum (study).</li> <li>2. Number of 3rd cycle programs and students fully handled in Morocco.</li> <li>3. Numbers of visiting/resident foreigners on faculty at IAV reduced (IAV Annual Report).</li> </ol>	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> <li>1. Maintained support of IAV by GOM (operating and capital budget).</li> <li>2. IAV continues development of management and incentive systems and retains trained faculty.</li> </ol>																																												
<p>Outputs: Trained faculty at IAV. Linkages to U.S. agricultural science established. Linkages to GOM research and extension programs established between faculty and field researchers.</p>	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> <li>1. 140 faculty members returned to Morocco and completed the Doctorate.</li> <li>2. 152 3rd cycle participants sent to U.S. and completed third cycle.</li> <li>3. 25 faculty members completed MS.</li> </ol>	<ol style="list-style-type: none"> <li>1. Head count of number of participants completed degrees.</li> <li>2. Dissertation research completed.</li> <li>3. Survey of returned participants contributions to extension research linkages of IAV.</li> <li>4. Participant progress reports.</li> </ol>	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> <li>1. Doctoral training in U.S. completed in 2 years (average)</li> <li>2. Doctoral dissertation in Morocco of quality expected and completed in 2-3 years.</li> <li>3. IAV supplied release time and other resources to do research on dissertation.</li> </ol>																																												
<p>Inputs:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">'000</th> </tr> <tr> <th colspan="2">\$</th> <th colspan="2">FH</th> </tr> <tr> <th></th> <th>USG</th> <th>GOM</th> <th>USG</th> <th>GOM</th> </tr> </thead> <tbody> <tr> <td>TA</td> <td>8115</td> <td>-</td> <td>1015</td> <td>1006</td> </tr> <tr> <td>Participant Training</td> <td>11970</td> <td>-</td> <td>300</td> <td>8748</td> </tr> <tr> <td>Commodities</td> <td>2036</td> <td>-</td> <td>401</td> <td>484</td> </tr> <tr> <td>Evaluation</td> <td>190</td> <td>-</td> <td>-</td> <td>50</td> </tr> <tr> <td>Inflation</td> <td>2386</td> <td>-</td> <td>240</td> <td>582</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>24995</b></td> <td><b>-</b></td> <td><b>1954</b></td> <td><b>10870</b></td> </tr> </tbody> </table>		'000				\$		FH			USG	GOM	USG	GOM	TA	8115	-	1015	1006	Participant Training	11970	-	300	8748	Commodities	2036	-	401	484	Evaluation	190	-	-	50	Inflation	2386	-	240	582	<b>TOTAL</b>	<b>24995</b>	<b>-</b>	<b>1954</b>	<b>10870</b>	<p>Implementation Target (Type &amp; Quantity)</p> <p>45 P/Y Scientists 23.3 P/Y Faculty Advisers 2.9 P/Y Consultants (US) 152 Third Cycle and 140 PhD completed courses See Commodity Section Several PES and a final evaluation report.</p>	<ol style="list-style-type: none"> <li>1. Research team in place (head count)</li> <li>2. Departure of participants (records).</li> <li>3. Admissions obtained to U.S. graduate programs for IAV candidates (Annual Reports).</li> <li>4. TDY Reports.</li> <li>5. Survey of students and U.S. advisors.</li> </ol>	<p>Assumption for providing inputs:</p> <ol style="list-style-type: none"> <li>1. IAV recruiting and retaining faculty members.</li> <li>2. U of M able to mobilize appropriate faculty in U.S. universities for resident and TDY assignments with necessary professional and language skills.</li> </ol>
		'000																																													
	\$		FH																																												
	USG	GOM	USG	GOM																																											
TA	8115	-	1015	1006																																											
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<b>TOTAL</b>	<b>24995</b>	<b>-</b>	<b>1954</b>	<b>10870</b>																																											

TABLE V-7

## COST BY FISCAL YEAR/SOURCE OF FUNDS

FISCAL YEAR INPUTS	1980-1981				1982				1983			
	AID		GOM		AID		GOM		AID		GOM	
Currency Source	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
Input Category												
TA	511				573				719			
TA SUPPORT		116		89		105		101		81		113
TOTAL TA	(511)	(116)		(89)	(573)	(105)		(101)	(719)	(81)		(113)
PART. TRAINING	1111	25		647	1552	46		989	1197	29		325
TOTAL PART. TRAINING	(1111)	(25)		(647)	(1552)	(46)		(989)	(1197)	(29)		(325)
COMMODITIES	197	12		300	152	16		12	200	33		12
TOTAL COMMODITIES	(197)	(12)		(300)	(152)	(16)		(12)	(200)	(33)		(12)
EVALUATION	-	-	-	-	-	-	-	-	70	-	-	20
TOTAL EVALUATION	-	-	-	-	-	-	-	-	(70)	-	-	(20)
BASE TOTAL	(1819)	(153)	-	(1306)	(2077)	(165)	-	(1102)	(2186)	(143)	-	(970)
INFLATION												
TOTAL	(1819)	(153)	-	(1306)	(2077)	(165)	-	(1102)	(2186)	(143)	-	(970)

TABLE V-7

## COST BY FISCAL YEAR/SOURCE OF FUNDS

FISCAL YEAR INF JIS	1984				1985				1986			
	AID		GOM		AID		GOM		AID		GOM	
Currency Source	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
Input Category												
TA	997				1096				1195			
TA SUPPORT		156		169		126		181		126		170
TOTAL TA	(997)	(156)		(169)	(1096)	(126)		(181)	(1195)	(126)		(170)
PART. TRAINING	1620	40		1045	2039	40		1174	1880	40		1209
TOTAL PART. TRAINING	(1620)	(40)		(1045)	(2039)	(40)		(1174)	(1880)	(40)		(1209)
COMMODITIES	76	40		15	590	50		15	471	70		15
TOTAL COMMODITIES	(76)	(40)		(15)	(590)	(50)		(15)	(471)	(70)		(15)
EVALUATION	-	-	-	-	-	-	-	10	60	-	-	-
TOTAL EVALUATION								-	(10)	(60)		
BASE TOTAL	(2695)	(256)	-	(1229)	(3725)	(216)	-	(1580)	(3606)	(226)	-	(1394)
INFLATION				105	256	15		110	449	38		112
TOTAL	(2695)	(256)		(1334)	(3981)	(231)		(1490)	(4055)	(24)		(1506)

TABLE V-7

## COST BY FISCAL YEAR/SOURCE OF FUNDS

FISCAL YEAR INPUTS	1987				1988				1989			
	AID		GOM		AID		GOM		AID		GOM	
FUNDING RESPONSIBILITY												
Currency Source												
Input Category	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
TA	1019				987				718			
TA SUPPORT		100		63		100		60		70		40
TOTAL TA	(1019)	(100)		(63)	(987)	(100)		(60)	(718)	(70)		(40)
PART. TRAINING	1772	30		1213	824	20		1216	102	20		303
TOTAL PART. TRAINING	(1772)	(30)		(1213)	(824)	(20)		(1216)	(102)	(20)		(303)
COMMODITIES	229	70		25	114	70		25	7	30		30
TOTAL COMMODITIES	(229)	(70)		(25)	(114)	(70)		(25)	(7)	(30)		(30)
EVALUATION	-	-	-	-	60	-		20	-	-		-
TOTAL EVALUATION					(60)			(20)				
BASE TOTAL	(5620)	(200)	-	(1301)	(1985)	(190)		(1321)	(827)	(120)		(373)
INFLATION	590	48		104	528	59		106	281	50		30
TOTAL	(3610)	(248)		(1405)	(2513)	(249)		(1427)	(1108)	(170)		(403)

COST BY FISCAL YEAR/SOURCE OF FUNDS

FISCAL YEAR INPUTS	1990				TOTAL			
	AID		GOM		AID		GOM	
FUNDING RESPONSIBILITY								
Currency Source								
Input Category	FX	LC	FX	LC	FX	LC	FX	LC
TA	598				8275	983		
TA SUPPORT		35		20				1006
TOTAL TA	(598)	(35)		(20)	(8413)	1013		(1006)
PART. TRAINING	73	10		128	11970	300		
TOTAL PART. TRAINING	(73)	(10)		(128)	(11970)	(300)		(8748)
COMMODITIES	-	10		35	1036	401		
TOTAL COMMODITIES	-	(10)		(35)	(2036)	(401)		(484)
EVALUATION	-	-	-	-	190			
TOTAL EVALUATION					(190)			(50)
BASE TOTAL	(671)	(55)	-	(183)	(22609)	(1710)		(10288)
CONTINGENCY	73				1,559			
INFLATION	282	30	-	15	(2386)	(240)		(582)
TOTAL	(953)	(85)		(198)	(24995)	(1950)		(10870)

ANNEX I

PROJECT CHECKLIST

A - GENERAL CRITERIA FOR PROJECT

1. FY 1982 Appropriation Act Sec. 523;  
FAA Sec. 634A; Sec. 653(b).
  - (a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project; (a) Congressional Notification
  - (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that amount)? (b) YES
  
2. FAA Sec. 611(a)(1) Prior to obligation in excess of \$100,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? (a) YES  
(b) YES
  
3. FAA Sec. 611(a)(2). If further legislation action is required within Morocco, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance ? None required
  
4. FAA Sec. 611(b); FY 1982 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 1973? (See AID Handbook 3 for new guidelines.) N.A.
  
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's N.A.

capability effective to maintain and utilize the project?

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. NO  
NO
  
7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of Morocco to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions. This project will train in the U.S., approximately 50% of IAV's faculty in agricultural fields. New agricultural technology learned in the U.S. will then be imparted by returned faculty to Moroccan agricultural students.
  
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise). A U.S. Title XII University is implementing the project through the collaborative assistance mode of project design and implementation.
  
9. FAA Sec. 612(b), 636(h); FY 1982 Appropriation Act Sec. 507. Describe steps taken to assure that, to the maximum extent possible, Morocco is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars. The GOM is contributing approximately \$3,225,00 equivalent in dirhams to this project.
  
10. FAA Sec. 612)d). Does the U.S. own excess foreign currency of Morocco and, if so, what arrangements have been made for its release? U.S. does not own excess foreign currency of Morocco.

11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? YES
12. FY 1982 Appropriation Act Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?
13. FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16? Does the project or program take into consideration the problem of the destruction of tropical forests? YES
14. FAA 121(d). If a Sahel Project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? N.A.

B - FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Sec. 102(b), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban
- This agricultural institution building project will help Morocco develop an Agricultural University that has the capability to train agricultural cadre to the PhD level without foreign assistance.

poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

- b. FAA Sec. 103, 103 A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used? YES
- c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small business, and small incomes of the poor)? YES
- d. FAA Sec. 110(a). Will the Morocco provide at least 25% of the costs of program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)? The GOM will contribute at least 25 % of the project.
- e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"? (M.O. 1232.1 defined a capital project as "the construction, expansion, equipping or alteration of a physical facility or facilities financed by AID dollar assistance of not less than \$100,000, including related advisory, managerial and training services, and not undertaken as part of a project of a predominantly technical assistance character. NO

- f. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? YES
- g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of Morocco; utilizes Morocco's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government. Project is developing IAV faculty to train Moroccan agriculturalists in in Morocco in skills critical to the country's agricultural development.

2. Development Assistance Project Criteria (Loans Only)

- a. FAA Sec. 122(b) Information and conclusion on capacity of the government of Morocco to repay the loan, at a reasonable rate of interest. N.A.
- b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? N.A
- c. ISDCA of 1981, Sec. 724(c) and (d). If for Nicaragua, does the loan agreement require that the funds be used to the maximum extent possible for the private sector? Does the project provide for monitoring under FAA Sec. 624(g)? N.A

3. Economic Support Fund Project Criteria

- a. FAA Sec. 531(a). Will this assistance promote economic or political stability? To the extent N.A.

possible, does it reflect the policy directions of FAA Section 102?

- b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities? N.A
  
- c. FAA Sec. 534. Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such use of funds is indispensable to nonproliferation objectives? N.A.
  
- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have special Account (counterpart) arrangements been made? N.A.

معهد الحسن الثاني

للزراعة والبيطرة

ROYAUME DU MAROC

INSTITUT AGRONOMIQUE  
ET VETERINAIRE HASSAN II

B.P. 6202 Rabat-Instituts

N=...../SG

/E DIRECTEUR DE L'INSTITUT AGRONOMIQUE  
ET VETERINAIRE HASSAN II

A INFO COPY

/))ONSIEUR CHASE  
Directeur de l'U.S.A.I.D.

- R A B A T -

ACTION: AGR. DUE: 3/9.  
INFO: DIR, A/DIR, PROG, CHRON, R.F.

La coopération initiée dès le début des années 1970 par l'Institut Agronomique et Vétérinaire HASSAN II avec les Universités Américaines et supportée par l'USAID a déjà permis la formation de plus de 175 cadres au niveau du Masters et à 84 enseignants-chercheurs d'engager le doctorat es sciences agronomiques en collaboration avec plus de 25 universités américaines.

Ce développement exceptionnel des relations scientifiques culturelles et humaines a été possible grâce aux réseaux de liens institutionnels qui lient l'Institut avec l'Université du Minnesota et aussi les autres universités américaines.

C'est pourquoi j'ai l'honneur de vous demander de bien vouloir faire aboutir l'amendement au projet IAV - University of Minnesota qui permettra la consolidation et la réalisation des objectifs de coopération à savoir la mise en place au Maroc d'une capacité scientifique de formation de recherche et développement oeuvrant pour l'agriculture et le développement rural avec la participation des Universités Américaines et la contribution de l'USAID.

Assuré du grand intérêt que vous portez à la réussite de notre projet je vous prie d'agréer, Monsieur le Directeur, l'expressio de mes meilleurs sentiments.



Le Directeur de l'Institut Agronomique  
et Vétérinaire Hassan II

Signé: MEKKALI Abdallah