

PROJECT EVALUATION SUMMARY (PES) - PART I

1. PROJECT TITLE Higher Agricultural Education - Phase II & Agronomic Institute			2. PROJECT NUMBER 608-0134 608-0160	3. MISSION/AID/W OFFICE Food & Agriculture
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Group - Fiscal Year, Serial No. beginning with No. 1 each FY)	
A. First PRO-AG or Equivalent FY <u>76</u>	B. Final Obligation Expected FY <u>85</u>	C. Final Input Delivery FY <u>85</u>	<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
6. ESTIMATED PROJECT FUNDING			7. PERIOD COVERED BY EVALUATION	
Total \$ <u>12,621,000</u>			From (month/yr.) <u>6/76</u>	
U.S. \$ <u>12,621,000</u>			To (month/yr.) <u>12/82</u>	
			Date of Evaluation Review <u>4/21/82</u>	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite programs needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Tracer study of INAV graduates should be performed. (see p.3, pp.10-12)	McSwain/Sleeper	5/82
2. Pending tracer study and EOP evaluation, AID should fund a follow-on activity to Project 0160. Under this activity, all participants should be fully-funded. (see p.6, pp.9-14)	N/A	9/85
3. Contractor should be requested to seek more interested candidates in the field of Plant Breeding. (see pp. 8-9)	McSwain/Sleeper	5/82
4. Contractor should be informed that voucher submissions are six months behind schedule. (see p.12)	McSwain/Sleeper	5/82
5. Contractor should be asked to submit secondary information with monthly voucher submission. (see p.13)	McSwain/Sleeper	5/82

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIORC	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIOR	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change

B. Change Project Design and/or

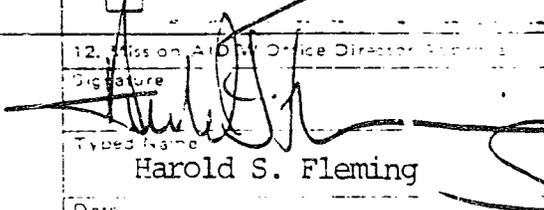
Change Implementation Plan

C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER BANKING PARTICIPANTS AS APPROPRIATE

Project Officer: AMcSwain, F&A Office
 Project Officer (Alternate): JSleeper, F&A Office
 AID/W Backstop Officer: LVoht, NE/T
 Team Leader: DJohnson, INAV

12. Mission/AID/W Office Director Signature

Signature: 

Typed Name: Harold S. Fleming

Date: _____

Project Evaluation Summary

Clearance:

AMcSwain, F&AO

WERdahl, PROG

HPetrequin, ADIR

Drafted by:

JSleeper, AGR

Attachments:

Log Frame Project 0134

Log Frame Project 0160

13. Summary

This PES addresses two projects: Higher Agricultural Education Project 0134 which began 6/76 and ended 3/80; and Agronomic Institute Project 0160 which began 3/80 and will end 9/85. Under both projects, AID has provided assistance to the Hassan II National Agronomic and Veterinary Institute (INAV) in the orderly development of curriculum and qualified Moroccan faculty so as to help reduce the institute's heavy dependence upon foreign teachers and faculty members and strengthen Moroccan agricultural development. To achieve this AID has provided participant training at the MS and PhD levels, U.S. resident faculty advisors, and a certain amount of commodities.

Progress in relation to design of both projects has been slow but steady. The major problem encountered, external to the project, has been the conflict between the staffing needs of the institute and the very high demand for trained agriculturalists elsewhere in the public sector. Another problem has been the lengthy period required for faculty participants to acquire their doctorate in-country. These problems have aggravated the already slow, evolutionary process which is characteristic of institutional development.

The major recommendation of this evaluation is that it be determined how well the current project is progressing towards the sector goal, which is broad-based agricultural development. To better examine this question, a tracer study should be performed to determine the occupations and activities of all institute graduates. Pending the results of this study and the EOP evaluation, it is also recommended that AID fund a follow-on activity to Project 0160. Other recommendations concern inadequate voucher submissions, and slowness on the part of the contractor to recruit faculty participants in the field of plant breeding.

The project has had highly beneficial side effects. Furthermore, in view of these benefits, the project as currently designed and implemented does not appear to be substantially more costly when compared to DS/IT participant training costs. Overall, contractor performance has been outstanding.

14. Evaluation Methodology

This evaluation is preparatory to a more detailed examination of the degree to which project 0160 is meeting USAID's agricultural sector goal of broad-based development. The purpose of this evaluation is to review progress and problems to date and recommend a scope of work for the more detailed tracer study. This evaluation was performed by USAID/Rabat with the assistance of the AID/W Backstop Officer and the resident team leader of the project. It is based upon a review of the following data sources: AID project documentation; previous AID evaluations; INAV annual reports; University of Minnesota participant records; and interviews with the director of the institute.

15. External Factors

a) Major changes in project setting - Three major changes in project setting have occurred over the life of the two projects: (1) the increased demand for trained personnel in agriculture which has required that INAV more than double its enrollment; (2) recent GOM budgetary stringency due to balance of trade, inflation and other problems; and (3) the GOM decision to move the horticulture and plant pathology departments to Agadir. To date, none of these changes have affected the validity of the assumptions made for achieving project goal and purpose.

b) Continuing validity of assumptions - On the whole, assumptions for achieving goal targets of project 0134 (6/76-3/80) and project 0160 (3/80-9/85) have remained valid and promise to remain so until the end of the latter project.

1) Project 0134 - Under project 0134, the assumption for achieving goal targets was that the GOM would remain "committed to the development of an indigenous higher agricultural education system".

It is clear that the GOM is committed to an indigenous faculty, in spite of a conflicting priority, which is to satisfy Morocco's rapidly growing agricultural manpower needs. When the

institute began its operation in 1968, practically all courses were taught by foreigners. The relatively few Moroccans trained abroad had only recently returned to Morocco to occupy key positions in the Ministry of Agriculture and were not available for teaching. By 9/74, however, 50 percent of the 85 staff and faculty members of the institute were foreigners. By 9/80, in spite of an almost three-fold increase in faculty and staff members (due to a greatly increased student body--240 entering the preparatory year in 1974 compared to 598 in 1980), INAV managed to reduce the proportion of foreigners to 40 percent (Source: Rapport Annuel de l'INAV).

The important assumption for achieving project purpose was that GOM would continue to provide budget support to INAV. This has remained a valid assumption. GOM budgetary support as a proportion of total planned investment in agriculture has increased by three times from 1968 to 1982 (from 0.5 to 1.5 percent). Allocations to the institute and its subsidiary institutions increased from an amount of 1.5 million DH in 1968 to 30 million DH in 1982 (Source: First and Fifth National Plans). This increase is well ahead of the annual inflation rate of 10 percent and the doubling of the student body.

2) Project 0160 - Under the current project, the assumption for achieving goal targets is that the "GOM provides incentives and jobs related support to agricultural sector personnel".

If this vague assumption implies that the GOM continues to provide incentives and related support to those seeking employment in agriculture, then the statement holds true, at least for participants under the project. Ninety-four percent of the 73 participants who have returned to Morocco are employed by the GOM (Table 1). The tracer study should offer a better picture of what proportion of all graduates are employed by the private sector, thereby giving an indication of which sector is more attractive to graduates. Since most agricultural production and processing in Morocco occurs in the private sector, USAID does not consider a priori that "leakage" from the public sector is antithetical to project goals.

It is also assumed necessary for achieving the purpose of the current project that INAV retain graduates to teach in the faculty. Since 1972, the number of Moroccans appointed to the faculty at INAV and subsidiary institutions increased steadily but slowly. As implied above, the proportion of Moroccan faculty and staff grew from 50 percent in 9/74 to 60 percent by 9/80. By 8/81, 27 of the 73 AID participants (32 percent) graduating

TABLE 1

Current Occupation of All Project Participants
Who have Returned to Morocco by 8/81
 (Projects 0134 and 0160)

	<u>Number</u>	<u>%</u>
Research/Research Administration (Government)	16	22%
Research and Teaching (INAV)	13	18%
Teaching or Extension <u>1/</u>	16	22%
Project Administration or Extension	23	32%
Private <u>2/</u>	4	5%
Other	<u>1</u>	<u>1%</u>
	73	100%

1/ Includes 14 individuals in INAV, National School of Agriculture (Meknes) and National School of Forestry (Salé). The latter two schools are subsidiary institutions of INAV.

2/ Includes semi-private companies.

Source: University of Minnesota Records.

in the third cycle (MS) and doctorat (PhD) programs under the project had returned to INAV to teach (Table 1).

Assumptions for achieving outputs as listed in the log frame of both 0134 and 0160 were examined and judged to remain valid.

Assumptions for providing inputs were judged to remain valid with two exceptions: (1) French-speaking ability of U.S. technicians; and (2) timely selection of participants to train in the U.S. As these are not external changes in project setting, they are discussed in the next section. The decision to move the horticulture and plant pathology departments to Agadir is discussed in Section 18 which addresses the replacement of U.S. personnel assigned to the project.

16. Inputs

There are two problems regarding the provision of inputs which have plagued this project from its inception, but do not severely hamper project implementation.

The first is inadequate French-speaking ability on the part of contract team members. The last two evaluations of the project in November 1978 (Evaluation Report Contract No. AID/NE-C-1560) and in May, 1980 (Audit Report No.3-808-80-14) indicate that members of the contract team were insufficiently proficient in the French language to perform their full scope of work.

This problem is no doubt aggravated by the fact that team members serve as advisors to participants who are either learning or already speak English. In an effort to overcome this problem, the contractor has liberally provided in-country French training. For its part, the USAID has agreed to screen proposed candidates more carefully for language ability.

Another factor which has slowed participant placement is the very late final selection of participants by INAV. Thus, twice a year a group of students receive final notification of acceptance in the U.S. training program only one or two weeks before their departure for the U.S. This procedure and timing is dictated by schedule at INAV, but earlier selection would permit greater ability in English and more consultation with field staff before departure. It would also relieve the burden of the last minute processing of 15-30 visas and PIO/Ps in the AID Training Office. Both AID and the contractor have repeatedly urged INAV to select participants earlier. To date, INAV has been unable to do so because it would require basic structural changes in the second cycle training program.

17. Outputs

a) Project 0134 - The magnitude of outputs predicted in project paper 0134 to be reached by the end of the project (3/80) were: 28 faculty members trained in U.S.; 16 junior faculty members appointed; and 120 graduates in soil and plant sciences. These were not attained by the end of project 0134 (Table 2). By then, only two faculty members in special program status had returned to the institute, and there were only 39 third cycle (MS) graduates. However, there was a total of 23 returns of faculty participants by 12/81 and there will be a total of 108 returned third cycle participants by 12/82 (Table 2). While financing for these participants was transferred from project 0134 to 0160, for the purposes of this evaluation returnees under the current project during 12/81 and 12/82 will be considered as counting against projected 0134 output levels. Finally, there were no PhD research programs or courses in operation at INAV by the end of the project.

b) Project 0160 - Final determination of whether output levels have been achieved must await an evaluation at the end of the project in 1985. However, should the momentum which has built up in this project continue, it is indeed possible that 0160 output levels will be attained by or slightly after 9/85.

In view of the fact that total project output levels under project 0134 were only just barely reached by two years and nine months into the current project, the output levels projected under the current project are somewhat less ambitious. These output levels are: 40 returned faculty participants; 30 more faculty participants in the U.S. for training; 15 doctorates completed; and a total of 70 third cycle participants sent to the U.S. for training.

Counting the faculty returnees of 12/82 (18) and 12/83 (14) from Table 2, and if it is assumed that 15 will return by 12/84 (a likely occurrence), then the target of 40 returned faculty participants will be met by the end of the current project. It is also likely that there will be another 30 faculty participants in the U.S. for training by the end of the project. Assuming that there are 25 third cycle departures in the years 12/83 to 9/85, it is possible that there will be 50-60 third cycle participants in the U.S. at the time the current project ends.

However, it should be noted here that it is AID policy to fully fund all participants in a project. This policy has not been followed in either project 0134 or 0160. The former required a follow-on project, and the latter will also require one in order to pick up participants who are still in the U.S. when the

TABLE 2

Returns and Scheduled
Returns of Faculty Participants

	<u>By</u> <u>3/80</u>	<u>1/</u> <u>12/80</u>	<u>By</u> <u>12/81</u>	<u>By</u> <u>12/82</u>	<u>By</u> <u>12/83</u>
Soil Science	0	1	1	4	0
Range Management	0	0	3	0	0
Watershed	0	0	2	1	0
Plant Breeding	0	0	1	0	0
Horticulture/Plant Pathology	0	3	1	3	3
Agronomy	0	0	2	2	2
Food Technology/Nutrition	0	0	3	1	3
Animal Science	0	0	0	4	2
Veterinary Medicine	0	0	0	0	2
Other <u>2/</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>2</u>
Total	2	6	15	18	14
Third Cycle <u>3/</u>	39	12	26	31	16

1/ Date Project 0134 ended and Project 0160 began.

2/ Refers to special training in following fields: soil science (short-term); TOEFL (MS); forestry (PhD); veterinarian toxicology (special program status); library science (PhD) and agricultural chemistry (PhD).

3/ Excludes faculty participants but includes those 3rd cycle participants returning to INAV in expectation of entering faculty participants program.

Source: University of Minnesota Records.

project assistance completion date is reached, It is therefore imperative, should AID decide to undertake a follow-on activity to project 0160, that all participants be fully-funded.

Because of the lengthy time required to complete in-country doctorates, it appears doubtful that 15 will be completed by the end of the project (see discussion below).

18. Purpose

a) Project 0134 - The approved purpose of project 0134 was to "assist Morocco's higher agricultural education system in (1) developing an indigenous teaching and research capability geared to training students in soil and plant sciences; and (2) training needed manpower to increase food production and improve nutrition status of the population". The training of faculty participants was to achieve (1) and the training of third cycle participants was to achieve (2).

Conditions indicating that this purpose has been achieved are: U.S. staff replaced by Moroccans; third cycle programs in soil and plant sciences are offered in Morocco by 1979; and INAV graduates employed in food production and nutrition programs.

In summary, it can be said that these conditions exist minimally. Some U.S. staff were replaced, some third cycle programs were instituted, but most graduates are employed in food production programs.

Under project 0134, there were six U.S. staff positions: soil chemistry; plant breeding; plant pathology; range management; watershed management; and horticulture. Only one (soil chemistry) was replaced by the end of the project. Another two (range management and watershed management) were replaced by 12/81 (21 months after the end of the project). At this date, there are still U.S. personnel staffing the plant pathology, horticulture and plant breeding positions.

It has been necessary to retain U.S. personnel in plant pathology and horticulture because the GOM has founded a School of Horticulture in Agadir. This decision was made in part to decentralize the Institute, but also because horticultural crops (citrus, olives, etc.) are an extremely important part of Morocco's agricultural economy and are a source of scarce foreign exchange. Much of horticultural crop production in Morocco occurs in Agadir Province.

However, while most departments have on the average 3-6 returned faculty participants who can replace the research and

advisory functions of the U.S. staff, there is only one returned faculty participant in plant breeding (see Table 2). It appears that the contractor is not actively encouraging interest in plant breeding and not attempting to recruit potential faculty participants in the field. In view of the severe lack of trained plant breeders in the country and the importance of this field in the development of Moroccan agriculture, this situation should not be permitted to continue.

Two third cycle programs (soil science and forestry) had been instituted by 1979. By 12/81, two more (range and watershed management) had been instituted.

By the end of project 0134, over 30 graduates had returned to Morocco and were employed in agricultural production and nutrition programs (primarily in the public sector).

Discussion -- Because of the length of time required to complete a PhD with in-country research, progress in achieving EOPS conditions has been steady but slow.

Despite the fact that INAV has only been in existence since 1968, there are now some 2,000 enrolled students. It would be far easier to permit the large number of students to study abroad to obtain their MS or PhD degrees, or to hire a foreign faculty to teach them. However, the GOM is strongly committed to an orderly development of an indigenous agricultural training institution. Consequently, and in order to maintain standardization of degrees, the approach in INAV has been to send students abroad to complete coursework and then require that they return to Morocco to pass a test and/or perform research and be awarded a degree from the institute. In this way, a student having studied at the MS level in Belgium will leave INAV with the same degree as another student having studied in France or the U.S. This system helps prevent formation of "cliques" (e.g., the American-educated vs. the French-educated cliques), prevents disputes over whose degree is higher (particularly important when determining civil service grades) and ensures that educated manpower will return to Morocco rather than emigrate abroad. This system offers an additional advantage in the case where research must be performed at INAV, as it can then be directed towards problems unique to Moroccan agriculture. INAV requires that students be awarded its own degrees from agricultural institutions in France, Belgium, Sweden, Germany, Britain, Canada, as well as the U.S.

Under projects 0134 and 0160, coursework for the doctorate (usually two years) is completed in the U.S. The participant then returns to Morocco, where he spends the next two years completing his doctoral research. While performing his doctoral

research, he also teaches classes and advises third cycle students.

To date, not a single doctorate under the project has yet been awarded. It is still too early. An examination of Table 2 indicates that by 12/82, only one doctorate in soil science and two in horticulture/plant pathology will be awarded. Thus it is somewhat inaccurate to state above that American personnel have been "replaced" by Moroccans, when in fact their functions (teaching, advising) have been replaced. The remaining American personnel still function as advisors to these individuals, but only to assist them in coordination of their research. This advisory activity is supplemented by TDY visits from their faculty advisors under whom they studied in the U.S.

b) Project 0160 - Conditions that will indicate the end of project status for Project 0160 are rather lengthy and will not be repeated here verbatim. In brief, the more important of these are: development of a "modern institution"; INAV doctoral system working; limited reliance on foreign faculty; and trained faculty engaged in teaching, extension and research. It is too early to surmise whether these conditions will be met by the end of the project. This question should be addressed by an evaluation at the end of the project in 1985. At that time, and pending the results of the tracer study, (see below), it is recommended that AID fund a follow-on activity to permit full-funding of the remaining participants under Project 0160, but also to meet the EOPS conditions, i.e., completion of the doctoral system and less reliance on foreign faculty.

19. Goal

a) Project 0134 - Stated goal was "to improve the capability and quality of Morocco's higher agricultural education system". While only minimum conditions indicating purpose achievement existed by the end of the project (see above), it is nonetheless clear that some progress was made towards realization of this goal.

b) Project 0160 - Stated goal is to "increase 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 aimed at increased output and employment". While it is too early to assess the progress towards this goal, the tracer study would give a good indication of the appropriateness of the project to Moroccan agricultural development, and its linkages to the technology delivery system and ultimately to low-income farmers and herders. This is discussed in more detail below.

20. Beneficiaries

The beneficiaries of both projects 0134 and 0160 are the "rural poor of Morocco", whose incomes and employment will be augmented by the increase in trained manpower in agriculture in both the public and private sectors. Upgrading of INAV would help solve critical food problems and generate income among the rural poor thereby slowing the high rate of rural-urban migration.

Admittedly, the relationship between the rural poor and a project which trains PhD's is somewhat tenuous. This was in fact the conclusion drawn by the Bureau for Project and Policy Coordination in its review of the project paper for 0160. A general audit of the USAID program in Morocco (Report No. 3-608-80-14) in May, 1980, came to a similar conclusion.

Nonetheless, the Mission and the Near East Bureau have presented a good case that the project does in fact meet the terms of criteria set out in Section 102 (d) of the FAA. Furthermore, a study carried out by INAV of incoming first year students indicated that over half were the sons of workers, farmers and small traders. Seventeen percent had a father or guardian who was unemployed. Less than 6 percent of the students' fathers were civil servants and less than 2 percent were from the liberal professions or were high-ranking bureaucrats.

Also, women are being admitted in increasing numbers at the institute. In 1977-78, out of 550 students who passed successfully the INAV entrance examination, 59 or over 10 percent, were women. This is fairly remarkable in light of known deficiencies in access to higher education for women in Morocco and other Middle Eastern countries. Women have been trained in the U.S. under project 0134 and have both administrative and faculty positions at the institute.

To better examine this issue, AID and INAV should conduct a tracer study of all the institute's graduates since the first graduating class in 1972. Such a study would give a good indication of the impact of the project upon the rural poor by determining what activities the graduates are now engaged in, what linkages have developed with extension and research and whether graduates are participating in broad-based agricultural development.

21. Unplanned Effects

A major unplanned effect of the project has been highly beneficial to AID project implementation in the agricultural sector

as a whole. This has been the creation of a U.S.-trained cadre of technicians in the Ministry of Agriculture who work with AID programs. The best example is the range management project 608-0145, under which there are now five individuals with MS-equivalent degrees in range management (a field not offered by European colleges) now implementing an AID program targeted directly at low-income herders.

Also, an evaluation in 1978 indicated that the project has produced in the Moroccan agricultural professional community a distinct change in attitude towards the U.S. with regard to the system and philosophy of American higher agricultural education. (Evaluation Report Contract no. AID/NE-C-1560). More recent discussions with the director of INAV as well as with several other technicians within the Ministry of Agriculture have supported this view. Part of this new and growing appreciation for American technical degrees has in part been due to the practical, applied orientation of American degree programs in relation to the more theoretical approach often taken in European degrees. Another factor is that curriculums and departments in certain fields which have been set up at the Institute (such as range and watershed management, dryland cereals) are not available under the European system.

22. Lessons Learned

Institutional development is a slow, evolutionary process.

23. Special Comments

a) Scope of work for tracer study.

This study will examine:

- 1) employment since graduation.
- 2) involvement in training agriculturalists at all levels since graduation.
- 3) agricultural research activities since graduation.
- 4) involvement in agricultural development in Morocco since graduation.

b) Late submission of vouchers - As of the date of this PES, the last monthly payment voucher submitted by the contractor was for the month of October, 1981. In view of the fact that 18 person-months of accountant services per year are charged under the current contract, a delay of over six months to submit payment vouchers is unacceptable. This delay prevents AID from adequately monitoring expenditures incurred under the project.

c) Inadequate information provided in voucher submissions - When submitted by contractor, payment vouchers provide only summary budget information. This prevents AID from adequately monitoring expenditures incurred under the project and insuring that the contractor is complying with statutory or AID policy requirements. Secondary information, at the same level of budgetary detail as presented in contractor's annual work plan, should be submitted with vouchers. In view of the availability of accountant services under the current contract, this should not be an overly difficult task.

d) Cost to AID for participant training - Neither projects 0134 or 0160 should be considered as participant training projects. Under both projects, AID is attempting to develop an indigenous and independent teaching and research capability within the Institute. This task requires a large technical assistance component, whereby both resident U.S. and TDY professors provide advice and guidance to students and young faculty, and in some cases teach classes.

Nonetheless, it is instructive to examine the cost to AID of participant training in the U.S. under both projects (see table 3). Average annual cost per participant-year in the U.S., when computing actual participant costs (tuition, etc.) but also technical assistance and university overhead, was \$30,000 under Project 0134. Average cost under the first 2½ years of Project 0160 may be estimated at \$31,450. The AID/Rabat training office currently estimates that participant training through DS/IT costs \$22,000 per year. If, given the lack of voucher details noted above, the technical assistance and overhead items are arbitrarily divided one half to project activities in Morocco and one half to stateside training, the cost per participant-year in the U.S. is equivalent to that \$22,000 figure.

TABLE 3
ANNUAL CONTRACTUAL
COST PER PARTICIPANT
IN THE U.S.

	Project 0134 Covering Period <u>10/76-4/80</u> <u>1/</u>	Project 0160 Covering Period <u>4/80-12/82</u> <u>2/</u>
	(U.S. Dollars)	
Technical Assistance <u>3/</u>	1,416,949	1,709,264
University Overhead <u>4/</u>	227,989	412,999
Participants	<u>955,255</u>	<u>2,566,332</u>
Sub-total	2,600,193	4,688,595
Commodities	<u>69,395</u>	<u>340,797</u>
Total	2,669,588	5,029,392
Total Participant Person-Months in U.S. <u>5/</u>	1,068 mo.	1,919 mo.
Cost Person-Month (excluding commodities)	2,500	2,620
Cost Person-Year (excluding commodities)	30,000	31,450

1/ Actual expenditures from 10/76 to 4/80 drawn from contract AID/NE-C-1279 amendment No.9

2/ Based upon: projected expenditures from 4/80 to 9/81 drawn from contract AID/NE-C-1279; actual expenditures from 6/80 to 9/81 as reported by contractor in Annual Report 1980-81 (except for overhead rate, which was based upon projected FY 81 budget from Annual Work Plan FY 81); projected expenditures from 9/81 to 10/82 estimated by the contractor in Revised Work Plan FY 82; plus three months pro-rated from 10/82 to 12/82 based on projected expenditures for FY 83 drawn from the latter document.

3/ Includes TDY, resident and on-campus salaries, fringe benefits, allowances, travel and transportation, and research support costs.

4/ During period covered in Project 0134 overhead comprised 14 percent of technical assistance costs. During period covered in Project 0160 overhead rose to 24 percent of technical assistance costs.

5/ Drawn from "Participants of the USAID/University of Minnesota Higher Education Project in Morocco" and Annual Report 1980-81, both by University of Minnesota. It is assumed that 25 students will depart for the U.S. in June, 1982.