

UNCLASSIFIED

INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D.C. 20523

TUNISIA: PROJECT 664-0315TECHNOLOGY TRANSFERAMENDMENT TWOGRANT1984

UNCLASSIFIED

TABLE OF CONTENTS

Table of Contents	i
List of Project Committee Members	iii
Project Authorization Amendment	iv
Project Summary	1
II. Review of Project Progress to Date	1
A. Overall Progress	1
B. Specific Components	1
1. Manpower Planning	1
2. Student Placement	2
3. Institutional Strengthening	2
4. Training Programs	2
C. Ongoing Validity of Key Project Assumptions	3
III. Purpose of Amendment and Description	3
A. Rationale for Proposed Change	3
B. AID Inputs	4
IV. Implementation	4
A. GOT Disbursement Mechanism and Controls	4
B. AID Disbursement Schedule and Projection	4
C. Implementation Plan	5
D. Evaluation Plan	6
E. Specific Assessment of Method of Project Implementation and Financing	6
V. Financial Plan	7
A. U.S. Contribution	7
B. GOT Contribution	7

ANNEXES

- A. Log Frame
- B. Congressional Notification
- C. GOT Request for Assistance
- D. Project Agreement Amendment Number Two

1. Mr. Richard S. Stevenson, Science & Technology Officer
2. Mr. Gerald R. Wein, Deputy Director
3. Mr. Frank J. Kerber, Acting Program Officer
4. Ms. Anne Williams, Regional Legal Advisor
5. Mr. Ernest S. Hardy, Controller

USAID/Tunisia Project Approval Officer

Mr. James R. Phippard - Director

AGENCY FOR INTERNATIONAL DEVELOPMENT
UNITED STATES A. I. D. MISSION TO TUNISIA

AMERICAN EMBASSY
TUNIS TUNISIA

PROJECT AUTHORIZATION AMENDMENT

Name of Country: Republic of Tunisia Name of Project: Technology Transfer

Number of Project: 664-0315

1. Pursuant to Sections 106 and 531 of the Foreign Assistance Act of 1961, as amended, the Technology Transfer Project for Tunisia ("Cooperating Country") was authorized on August 31, 1981 and was amended on August 29, 1983 (the Authorization) and is hereby further amended as follows:

a. Delete the second paragraph of Section 1 and insert the following in lieu thereof:

"Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby further authorize additional funding for the Technology Transfer Project involving planned obligations of not to exceed three million two hundred thousand dollars (\$3,200,000) in grant funds over a two year period from the date of the first amendment to the authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange costs for the Project."

b. In the second sentence of Section 2, following the word "graduate" insert the phrase "and undergraduate".

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

Signature: 
James R. Phippard
USAID Mission Director

Date : 4.24.84

ACTION MEMORANDUM

Date : April 17, 1984
TO : James R. Phippard, USAID Director
FROM : Richard S. ^{FOK}Stevenson, Science and Technology Officer
SUBJECT : Technology Transfer Project 664-0315

PROBLEM: Your signature of the attached Project Authorization Amendment and Project Paper Amendment supplement is required to authorize \$1.2 million in FY 84 Economic Support Fund grant funds for the subject project.

DISCUSSION: This project was approved and obligated in FY 81. Since the date of the Agreement, August 31, 1981, a host country contract with the Academy for Educational Development (AED) was signed on August 18, 1982. This technical assistance contract constituted nearly all of AID's contribution to the project. The GOT's contribution was primarily the costs associated with the Government of Tunisia Scholarship Program in the U.S. for approximately 450 undergraduate and graduate students in a variety of development related fields. While there were some delays in signing the host-country contract, the project appears to be making adequate progress in meeting its overall objectives.

On August 30, 1983, AID and the GOT signed Amendment No. 1 to the Project Agreement adding \$2.0 million of FY 83 ESF funds to the project to be used to directly support training costs associated with Tunisian graduate students studying in the U.S. A Project Paper supplement was prepared which provided the necessary justification and documentation. The project remained essentially unchanged and the \$2.0 million of additional AID funds provided for an input which theretofore had been supplied exclusively by the GOT. The GOT had experienced foreign exchange problems which made it difficult to continue expanding the scholarship program at the expected pace, and requested that AID directly contribute to the costs associated with training.

Because of continuing problems with their foreign exchange balance and steadily increasing costs of education in the U.S., the GOT has requested that \$1.2 million of FY 84 ESF funds also be used by AID to support the costs of Tunisian students studying in the U.S. (See letter No. NH/LS/8I-3 dated March 2, 1984 attached). The GOT has further requested and AID has agreed that undergraduate engineering studies be funded within the framework of this project. The Project Paper

6

Amendment No. 2 updates the project implementation plan, the budget and the logical framework. AID resources will now be used to fund approximately 310 person-years of academic training in the U.S. for a total of approximately 385 Tunisian undergraduate engineering students and graduate students in priority development fields, such as management, computer sciences, engineering, physics, architecture and food processing.

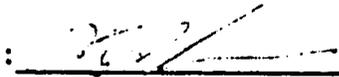
AID funds for this training will be provided directly to the GOT in support of its scholarship program. Because of our providing support to a GOT managed scholarship program, this training activity represents a departure from traditional AID participant training policy and procedures in that AID will not necessarily fully fund any student's program to completion. However, Project Implementation Letter No. 5, signed and countersigned simultaneously with Project Agreement Amendment No. 1, stipulates that the original Agreement is understood to say that the Government of Tunisia will take all steps necessary so that students studying in the United States under this Project can complete their degree programs.

Changes in line allocation of budget within the AED contract, as requested by the GOT in amendments No. 4, 6 and 7 to the AED contract, are reflected in item F.1 of Annex I to the proposed Project Agreement No. 2. These include: (1) increase of item F.1.g (equipment) by \$15,000 to fund micro-computer hardware and software for the Scientific Mission of Tunisia (Washington, D.C.) with corresponding reduction of items F.1.e (visiting U.S. faculty) by \$7,000 and F.1.h (student orientation) by \$8,000; and (2) increase of item F.1.i (contractor home office support and project coordination) by \$33,000 to fund project coordinator functions originally assigned to the resident advisor with corresponding reduction of item F.1.2 (long-term advisor).

STATE 100565 provided authority for you to sign the Project Authorization Amendment.

NOTIFICATION TO CONGRESS: Congressional Notification of our intent to obligate \$1.2 million in FY 1984 ESF funds for the Technology Transfer Project 664-0315 was made on March 12, 1984 (STATE 90927), and the fifteen day waiting period expired on March 27, 1984.

RECOMMENDATION: That you sign the attached Project Paper Amendment face sheet and the Project Authorization Amendment adding \$1.2 million to the Technology Transfer Project.

Approved : 
Disapproved: _____
Date : 4-24-84

- Attachments: A. Project Authorization Amendment
B. Project Paper Amendment and Face Sheet
C. STATE 10565 (Authority)
D. STATE 090927 (CN Submission)
E. GOT Request, Letter No. NH/LS/8I-3

8

I. Summary

This Project Paper Amendment describes an amendment to the Technology Transfer Project (664-0315), initially authorized on August 31, 1981. The action described will increase AID grant funding for the project from \$3.45 million to \$4.65 million. The project purpose has not been modified and the project description and logical framework have been changed only to reflect increased AID grant funding, the inclusion of undergraduate studies for AID funding and the increased number of Tunisian students who will benefit from AID funds.

All project elements remain unchanged. The funds provided through this amendment will be used to finance the equivalent of approximately 230 additional person-semester of training as partial funding for approximately 377 Tunisians studying at the graduate and undergraduate levels in the United States in such fields as management, computer sciences, physics, engineering, architecture and food processing. AID funding of student costs will not require additional staff beyond the original level planned.

II. Project Progress to Date

A. Overall Progress - While general implementation progress in the project was initially slow due to contracting delays and strained relations between the Ministry and the resident advisor, constructive steps have been taken to intensify project activity. This is now proceeding well on a revised implementation schedule under which all project objectives will be accomplished before the PACD. At the request of the GOT the resident advisor was terminated after one year and a new resident advisor was not recruited. Instead, the advisory and planning role of the resident advisor was assumed by the contractor's project manager. It was agreed in September 1983 that the contractor's project manager would make four or five two week visits to Tunisia each year to visit the faculties and carry out functions originally assigned to the resident advisor, particularly planning for U.S. faculty to visit Tunisia and for Tunisian faculty to visit the U.S.

B. Specific Components - Progress within individual project components is as follows:

1. Manpower Planning - A committee for manpower planning has been established, as specified in the conditions precedent, composed of several key MHERS officials, representatives of the higher academic institutions involved and representatives of the Ministries of National Economy and of Plan. Several planning meetings have been held and a researcher has been employed by the MHERS to clarify and elaborate on previous manpower planning research efforts. A US manpower planning expert has carried out a five week analysis and projection of technical manpower requirements and supply in Tunisia and has submitted a detailed report including program recommendations. This report is currently under review by the GOT and by AED, who will together determine subsequent steps in this program element.

2. Student Placement - AED has supplied a full time student placement specialist to work as a member of the staff of the Scientific Mission of Tunisia in Washington, D.C. The project has also provided the same office a minicomputer and software for the complex data management tasks associated with student placement and tracking. The combination of the Tunis MHERS office which selects the students and prepares their dossiers and the Washington office which places and manages them now appears self sufficient and has carried out a large number of placements with no apparent requirement for external assistance. Though the initial project funded staff member in Washington has resigned, a replacement has been recruited to continue for the completion of the programmed 30 months (through June 1985) to assist in carrying the expanding load. A small amount of consultation to the Tunis placement office is still planned.

3. Institutional Strengthening - The deans of the four engineering schools to be assisted have each made a two to three week visit to several U.S. engineering schools to discuss curricula and teaching methods and approach. From these visits, in which they were accompanied either by the resident advisor or by the AED project manager, the deans gained valuable knowledge of the nature of engineering training in the U.S. and the types of faculty and curriculum assistance which could be requested under the project. Each dean has now given specifications for visiting professors for the current academic year, several professors have already made visits, and AED continues recruitment. An accelerated schedule of faculty visits is planned for this and the coming academic years in order to use effectively project resources and accomplish project objectives before the PACD.

An important objective of the project is the establishment of professional and institutional linkages between Tunisian and U.S. institutions of higher technical education. To this end, the project resources will be used to promote an institutional tie between each Tunisian institution assisted and a specific U.S. academic institution, and to the extent practicable the flow of visiting U.S. professors and Tunisian administrators and faculty on study tours will occur between paired institutions. Arrangements have been tentatively established between the following institutions: Ecole National d'Ingenieurs à Gabès and the University of Houston; Ecole National d'Ingénieur à Sfax and the University of Wisconsin; Faculté des Sciences à Monastir and the University of Minnesota; Ecole Normale Supérieure d'Enseignement Technique and Ohio State University; Institut Supérieur de Gestion and Pennsylvania State University; and Institut Technique d'Architecture et Urbanisme and Kansas State University.

4. Training Programs - The GOT programs of technical higher education in the U.S. funded 184 undergraduate and 32 graduate students during academic year 1981-1982, an additional 61 undergraduate and 30 graduate students during 1982-1983, and an additional 55 undergraduate and 25 graduate

students during 1983-1984. The total number of students supported by the program in 1983/84 is 77 graduates and 300 undergraduates. Comments received from U.S. institutions where these students have been placed indicate that the quality of both undergraduate and graduate students selected for this program is high and that they are generally doing well academically. The graduate students are studying in a variety of engineering and related fields, and all are enrolled in Ph.D. programs. English language preparation appears to have been generally adequate, although a number of graduate students have spent the majority of time during their first semester in the U.S. in intensive English language study.

It has been suggested by the GOT that under certain conditions non-degree short and medium term graduate training may be more cost effective than long-term degree training, and they have asked that the Project Agreement be amended to allow reimbursement of such non degree graduate training. Examples cited are for postgraduate professional upgrading of technical faculty members and post graduate specialization for medical doctors to qualify them for the medical school faculty. Upon further examination of the merits of those individual cases which may be proposed the GOT and AID may at a future date mutually agree to appropriately amend the terms of the Project Agreement.

The GOT has also requested that undergraduate engineering studies be included within the AID funded portion of the project, and AID has agreed to do so starting with the current academic year (1983-1984). Together with the GOT AID recognizes that in most engineering fields the MS is the predominant degree and that only those students planning research and teaching normally continue for the Ph.D. Because of the difficulty of transition from the Tunisian academic system to the American system it is often not cost-effective to send a student from Tunisia for only the two year MS degree. Instead, the GOT has chosen to send students directly from lycee for a combination BS and MS program, with the expectation that they will work as Ingénieur Principal upon their return. Persons holding that title or degree equivalency usually are soon appointed chief engineers for plants or organizations and are in positions to influence engineering practices and procedures within their organizations. AID believes that such professionals can serve an extremely constructive role of technology transfer, introducing U.S. engineering approaches and techniques, and for that reason AID has agreed to fund undergraduate engineering studies in the U.S.

C. Ongoing Validity of Key Project Assumptions - Since the Project Agreement was signed, nearly all of the key project assumptions have proven to be valid: GOT legislation was amended to allow payment of application fees; Tunisian students are being accepted into appropriate U.S. academic institution and are being sent according to schedule; and English language training programs are preparing students for U.S. study according to schedule.

11

The only major assumption which has come into doubt is the GOT's ability to meet its foreign exchange commitments for the project. While no plans have been made to reduce the number of students to be trained, it is clear that the continued deterioration of Tunisia's foreign exchange situation and the stringent budget limitations which have been placed on GOT ministries have raised some questions about the long-term ability of the GOT to meet fully its commitment to the program. It is largely as a result of this situation that AID has agreed to provide additional funding for direct costs of some of the Tunisian students.

III. Purpose and Description of Amendment

A. Rationale for Proposed Change - By Amendment Number One to the Grant and in response to a strong request from the GOT for direct AID support of students in the U.S., AID increased the funding of this project in FY 1983 by \$2,000,000, to be used for graduate studies of Tunisians in the United States. The GOT created its scholarship program in the U.S. because of a strong belief that the U.S. represents the leading edge of technology and a desire to strengthen ties with the U.S. It has requested this support of an ongoing program because of increases in U.S. higher education costs and the deterioration of Tunisia's foreign exchange position. Discussions between senior GOT and U.S. officials have made clear the high level of Tunisian political commitment and the importance for the Tunisians that the U.S. Government be directly associated with all aspects of the Tunisian scholarship program in the US. Continued increases in higher education costs and a sustained commitment to a program of expanded technical and professional ties with the U.S. have caused the GOT to request additional support by AID to this program, and it is the judgement of USAID that granting this increased assistance will impact positively on Tunisia's economic development.

B. AID Inputs - All elements of the project remain unchanged in substance. The \$1,200,000 of AID funds being added by this amendment will provide the equivalent of approximately 115 academic person-years of training benefitting approximately 377 Tunisian students, approximately 300 of whom were not previously funded by the AID contribution. This will bring the total number of student academic person-years funded to approximately 310. The project will fund Tunisian engineering undergraduate students and graduate students in priority development fields such as management, computer sciences, engineering, physics, architecture and food processing. The GOT will continue to be responsible for all international travel. The GOT will be responsible for the costs of English language training in Tunisia for the AID supported students.

IV Implementation

A. GOT Disbursement Mechanism and Controls

Funds allocated by the GOT for higher education in the U.S. are disbursed through the Scientific Mission of Tunisia in Washington. All

tuition and fees are paid directly to the institutions on behalf of the students, and living and book allowances and reimbursement for medical expenses are disbursed through a monthly check to each student. The Mission keeps complete financial books (now computerized) and must account for all funds disbursed, both for students and for its own operating expenses, through receipts which are returned to Tunisia for review. These accounts and receipts are examined by both the Controller of the MHESR's Office of University Affairs and by the Controller of the Office of the Prime Minister, both of which must sign their approval before an advance of funds is cleared. In addition, an auditor of the Office of Controller of the MHESR visits Washington for a complete review of the accounts on an unannounced basis at unspecified intervals. The most recent audit occurred in 1983.

B. AID Disbursement Procedures and Projections - Disbursement of AID funds is estimated as follows:

1. Approximately \$594,000 for the 62 Tunisian graduate students who studied in the United States during the 1982-83 academic year. Appropriate documentation justifying all but \$30,000 of these expenses has been submitted by the GOT and reviewed and approved by AID, and disbursement of the funds has been made.

2. Approximately \$370,000 for the first semester costs for 74 graduate students in the 1983/84 academic year. \$336,000 has been advanced against estimates submitted to AID for approval.

3. Approximately \$406,000 for the second semester costs for approximately 77 graduate students in the 1983/84 academic year. These funds were disbursed after the start of the semester and when the MHESR confirmed in writing that these students were accepted to start or continue their studies in the second semester, as in A2. above.

4. Approximately \$1,580,000 for the first semester costs for approximately 300 undergraduate engineering students in the 1983/84 academic year, as in A3 above.

5. The balance of approximately \$250,000 for part of the second semester costs for approximately 300 undergraduate engineering students in the 1983/84 academic year, as in A3 above.

C. Implementation Plan - A combination of some delay in initial project implementation and the addition of funding of scholarships which could carry on through June 1985 requires a revision of the project implementation plan as follows:

August, 1981	Project Agreement signed
August, 1982	Contract signed with Academy for International Development.
October, 1982	Resident Advisor arrives in Tunis.
February, 1983	Advisor starts work with MHESR Washington Office.
February, 1983	Committee for Manpower Planning established.
May, 1983	Visits of deans of engineering schools to U.S. starts.
June, 1983	Resident Advisor departs Tunis. AED starts recruitment of visiting faculty for fall 1983.
September, 1983	Joint project assessment completed and AED submits life of project plan to GOT and AID.
September, 1983	Approximately 70 new Tunisian students (55 undergraduate and 15 graduate) start technical studies in the U.S.
November, 1983	Manpower planning expert prepares action plan for life of project.
December, 1983	First visiting U.S. professors arrive in Tunisia
January, 1984	Additional 10 new Tunisian students start technical studies in the U.S.
February, 1984	First Tunisian faculty for study tours arrive in U.S. for academic year 1983/84.
March, 1984	Mid-project assessment carried out jointly by AED, AID and GOT.
September, 1984	Approximately 80 new Tunisian students start technical studies in the U.S.
June, 1985	Final project assessment carried out jointly by AED, AID and GOT.
June, 1985	Project Activity Completion Date.

D. Evaluation Plan

Because the AID project is integrated with a large and growing GOT program of technical training in the U.S. and because the system of technical higher education is in a period of change requiring frequent adjustment to the nature of assistance given it for maximum effectiveness, AID and the GOT have concluded that the interest of the project is better served by a larger number of informal joint project assessments rather than by the more conventional mid and final project evaluations.

Three assessments are scheduled for the project, those done in September 1983, and in March 1984 near the mid-point of the project, and another at the end of the project in June 1985. Additional assessments may be scheduled as mutually agreed. Assessments are undertaken collaboratively by representatives of the contractor, the GOT and A.I.D. A.I.D. funds for project assessment are included within the project and the resulting host-country contract. The assessments will take place concurrently with project implementation and there will be no delay in on-going project activities.

E. Specific Assessment of Method of Project Implementation and Financing

The justification for the method of implementation and financing under Project Amendment No. 1 and under this project amendment has been discussed in the Mission document General Assessment of Project Implementation and Financing for projects active as of December 31, 1983. This amendment contains no modification to that discussion. Please refer also to Section IV A, "GOT Disbursement Mechanism and Controls".

1. Controller Concurrence with Financial Implementation

USAID has had some experience with the procedures set forth in Amendment No. 1 to the Project Paper and the project implementation letters. Vouchers submitted to date have been in accordance with the terms of the implementation letters and have been generally acceptable. One advance, given in December, 1983, has been cleared. This advance covered the academic semester beginning in September 1983, and in fact covers expenditures already made and qualifies generally as a direct reimbursement. An additional advance has been requested for the spring semester 1984, and, again the advance covers expenditures already made and covers a period for which the Controller concurs in the methods of implementation outlined in the amendment.

2. Provision for Audit

Under the terms of the Agreement, USAID agreed to fund academic training in priority development fields. The allowances provided are generally less than those normally provided by AID. Amendment No. 1 to the Project Paper also provides for the documentation to be submitted in support of reimbursement and recovery of advances. Under the terms of the grant agreement AID is authorized to regularly check to insure that fields of study are development related. The grant agreement also provides for dollar advances to be made to the Scientific Mission of Tunisia located in Washington, D.C. on a semester basis. These advances cover specific categories of disbursements.

Under present procedures, the Scientific Mission is required to send details of all expenditures to Tunisia for review and audit by financial control authorities within the Ministry of Higher Education and Scientific Research. These documents are available to USAID for review or audit at post. The project paper assumes that the GOT will continue this program beyond the period of AID participation and that there will be a GOT contribution in the reimbursable categories due to the limitation of the AID contribution. The potential risk of loss of AID funds through misuse or unallowable deduction is thus substantially reduced. Given the GOT post-audit of documentation, this risk is further reduced. For these reasons, AID feels that the interest of the USG can be served by an audit performed by the Grantee and therefore does not recommend that specific funding be set aside from the grant funds for audit coverage.

15

V. Financial Plan

A. U.S. Contribution

It is anticipated that the \$1.2 million added in FY 84 through this amendment will be expended by June, 1984, as explained in Section IV, B, above.

B. GOT Contribution

The GOT's contribution to the Project has decreased from that presented in Project Paper Amendment No. 1 (\$35,190,000). The 900,000 Tunisian Dinars originally budgeted for GOT expenses for the Academic Affairs Office in Washington, Salaries, Logistical Support, English Language Training, and US Professors in Tunisia remains unchanged. However, the budget for Academic Training is reestimated, on the basis of actual costs for academic year 1982/83 and allowing a 10% per annum rate of inflation, at \$30,050,000. This is the estimated GOT contribution needed to complete the degree programs of those students who commence their graduate or undergraduate studies in or before academic year 1984/85. It is based on the assumption that the following numbers of students commence their studies in academic years as follows:

1981/82	216 (actual) including some prior year graduate students)
1982/83	91 (actual)
1983/84	80 (actual)
1984/85	80

The total Grantee contribution is therefore estimated as follows:

Academic Affairs Office	TD 400,000
Salaries	126,700
Logistical Support	48,300
English Language Training	250,000
Support of U.S. Professors in Tunisia	75,000
Sub-Total	TD 800,000
At US\$1.00 = TD 0.720	
This subtotal equals:	\$ 1,250,000
Academic Training (not including \$3.2 million AID Contribution)	28,800,000
Total GOT Contribution	\$ 30,050,000

ANNEX A

TECHNOLOGY TRANSFER PROJECT

LOGICAL FRAMEWORK

Narrative Summary

Indicators

Purpose to Goal Assumptions

Goal: Long-term Technology Transfer to Tunisia

1. Graduates of project-sponsored training in U.S. serving on S and T faculties in Tunisia.
2. Technology manpower needs being met in Tunisia.
3. Regular flow of published cooperative research between the U.S. and Tunisia.
4. Graduate research being conducted on Tunisian topics in U.S. and elsewhere abroad.

1. U.S. technology is relevant and adaptable to Tunisia. GOT continues to recognize benefits of U.S. technologies.
2. Tunisian researchers will be motivated (by peer recognition) to produce publishable research.
3. Subjects relevant to Tunisia and Tunisian researchers will be stimulating to U.S. researchers.
4. Tunisian graduates will be motivated to join Tunisian faculties.

Purpose: Institutionalization of GOT capability to effectively and economically acquire and manage technology

1. 460 Tunisian students successfully pursuing academic degrees in Technical fields in U.S. institutions.
2. Course offerings in Tunisian technical institutions increased in quantity, quality and relevance.

Output to Purpose Assumptions

1. GOT English training is sufficient for Tunisian students to function in the U.S.
2. GOT continues commitment to technical transfer objectives.
3. Faculties of Tunisian technical institutions receptive to U.S. Curriculum and pedagogical innovations.

PACD: June 30, 1985.

18

Purpose level

Indicators, continued

3. MHESR and MP have capability to accurately forecast labor needs in S and T sector.
4. Student placement services to MHESR in Tunis and Washington have capacity to screen, place and support students in U.S.
5. Institutional links developed between faculties of Tunisian technical institutions and U.S. contractors and institutions.

Outputs

1. Management planning task force established and functioning
2. Tunisian institutions of higher technological studies are strengthened.
3. Student placement offices of MHESR in Tunis and Washington, D.C. are fully functional.

Indicators

1. Task force established within the Ministry of Higher Education composed of representatives from GOT ministries and Tunisian academic institutions by February 1983
2. 54 person months of U.S. faculty recruited and placed in Tunisian technical institutions.
36 Faculty seminars conducted
Curriculum offering examined at 4 engineering schools and the business school.
3. 460 graduate and undergraduate Tunisian students recruited and placed in U.S. Universities during life of project.

Inputs to Output Assumptions

1. GOT can meet foreign exchange commitments through PACD.
2. GOT and for AID funded salaries for U.S. professors resident in Tunisia are attractive to U.S. professors.
3. GOT can identify and prepare students for U.S. university studies according to project implementation schedule.
4. U.S. universities and consortia respond to RFTP.
5. Tunisian students accepted into appropriate U.S. academic programs on schedule
6. GOT legislation amended to include application fees.

14

SP

Inputs

Total project cost: U.S. 34.7 million

Total U.S. contribution: U.S. 4.65 million: 33 person-months of consultative services; recruitment and salary support for 54 person-months of U.S. faculty; student placement advisor in Washington; up to 22 study tours of Tunisian faculty and administrators to U.S.; resident advisor in MHESR; tuition, room, board and other AID allowable expenses for approximately 310 person years of academic study in the U.S.

Total GOT contribution: U.S. \$30.05 Million: All travel for students; tuition, room and board expenses for those Tunisian student costs not funded by AID; travel and salaries for resident professors; administrative support in Tunis and Washington, D.C.

16

of

ANNEX B

March 12, 1984

We wish to inform you of proposed actions in the Agency's programs during Fiscal Year 1984:

Egypt - Commodity Import Program # 216
Tunisia - Technology Transfer # 215
Guatemala - Integrated Non-Formal Education
Southern Africa Region - Technical Notification

The attached notifications were sent to the Hill on 3/12/84.
Obligation may be incurred on 3/27/84.

Bette Cook
Program Presentation Division
Office of Legislative Affairs

AGENCY FOR INTERNATIONAL DEVELOPMENT

ADVICE OF PROGRAM CHANGE

Date: March 12, 1984

Country : Tunisia

Project Title : Technology Transfer

Project Number : 664-0315

FY 1984 CP Reference : Near East Annex IV, p. 169

Appropriation Category : Economic Support Fund

Life-of-Project Funding : \$7,650,000 (Grant)

Intended FY 1984 Obligation: \$1,200,000 (Grant)

This is to advise that A.I.D. intends to obligate \$1,200,000 in FY 1984 ESF grant funds for the Tunisia Technology Transfer project to support the Government of Tunisia scholarship program in the U.S. Students will study management, computer sciences, physics, various engineering fields, architecture, food processing and other fields of importance for Tunisia's development effort. Selection, placement and management of the scholarship program is completely under the direction of the Tunisian Government. This addition of FY 84 ESF resources augments a project initiated with development assistance (DA) funding. In FY 1983, \$2 million of ESF funding was added to this project for the same purpose.

An Activity Data Sheet is attached.

Clearances:

NE/TECH/HRST, B. Heyman JC for
NE/NENA/TM, J. Roberts P
NE/DP, P. Sellar POS
NE/TECH, B. Turner BCT
GC/LPIA, R. Lester R. Lester SML
DAA/NE, B. Langmaid S
AA/NE, W. A. Ford WAF

Drafted: NE/TECH/HRST, AVollbrecht. lch:2/16/84 (0508J)

BJ

**AGENCY FOR INTERNATIONAL DEVELOPMENT
ACTIVITY DATA SHEET**

CFR 101.1172

PROGRAM: Tunisia

TITLE Technology Transfer		FUNDING SOURCE Economic Support Fund		PROPOSED OBLIGATION (in thousands of dollars)		LIFE OF PROJECT (years) 7, 650
NUMBER 664-0315	NEW <input type="checkbox"/>	PRIOR REFERENCE Advice of Program Change, #603, dated 7/22/81		INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 85	ESTIMATED COMPLETION DATE OF PROJECT FY 87
GRANT <input checked="" type="checkbox"/> LOAN <input type="checkbox"/>	CONTINUING <input checked="" type="checkbox"/>			1,200		

Purpose: To enhance Tunisia's capability to acquire and incorporate appropriate technology into its development process.

Background: Tunisia is not benefitting sufficiently from technological advances, and its technical training system, while having progressed substantially in the past twenty years, is not keeping pace with advances in science and technology. There are three principal obstacles to efficient acquisition and development of technology in Tunisia: (1) lack of linkages with U.S. institutions which would provide continuing awareness of the most appropriate available technology; (2) lack of effective manpower planning to guide placement of students by field and to direct growth of Tunisian technical institutions; and (3) outdated curricula and pedagogical methods which limit the benefit students derive from technical training in Tunisia.

Project Description: The project will provide technical, material and financial support to Tunisia's Ministry of Higher Education and Scientific Research to: (1) develop a manpower planning capability to estimate and plan for future human resource needs, thereby expanding Tunisian scientific and technical institutions in a pattern consistent with Tunisian development priorities; (2) direct selected Tunisian students in scientific and technical fields to appropriate institutions and fields in the U.S.; (3) assist Tunisian educational institutions in upgrading curricula and pedagogic methods, organizing research and offering selected courses taught by U.S. faculty; and (4) support the training of selected Tunisian students in the U.S. in fields of high development priority. In carrying out these activities, emphasis will be placed on appropriate applied technology and on the establishment of lasting professional linkages between Tunisian and U.S. institutions.

Relationship of Project to A.I.D. Country Strategy: This project is directly related to U.S. efforts to transfer appropriate U.S. technology and to build a lasting and mature post-A.I.D. relationship with Tunisia.

Beneficiaries: The direct beneficiaries are the project participants - the planning and student placement staff and policy-makers, professors, researchers and students who will study at U.S. universities. Indirect beneficiaries are the Tunisian populace at large who will benefit from improved technological capacity impacting on general economic growth.

Host Country and Other Donors: The Government of Tunisia will provide technical and administrative staff, facilities within Tunisia, tuition costs and support for most Tunisian students to the U.S. and in Tunisia, partial salaries and support for U.S. professors, and English language training. The total Tunisian contribution is expected to exceed \$15 million, although some of this may be financed by other donors, particularly OPEC nations. There will also be Contributions from the OECD, Canada and UNESCO.

Major Outputs:

	<u>All year</u>
Manpower planning capacity established in Ministry of Higher Education and Scientific Research to 1) direct Tunisian students into priority fields and 2) expand technology teaching institutions to meet national development priorities.	X
Tunisian students trained at U.S. institutions	248
Tunisians trained in student placement in U.S. institutions	2
Improved teaching methods and technical curricula incorporated in Tunisian institutions	X

A.I.D.-Financed Inputs:

	(\$Thousands) <u>Life-of-Project</u>
Technical Assistance	
Long-term in-country (24pm)	239
Long-term (at Gov't of Tunisia Washington student placement office)(30pm)	206
Short-term in-country consultation services (31pm)	305
Faculty Exchange Visits/Tours	
U.S. faculty to Tunisia (54pm)	405
Tunisia faculty and Admin. officials to U.S. (25pm)	198
Equipment (Minicomputer, office equipment, vehicles)	25
Participant training	6,272
	<u>7,650</u>

24

U.S. FINANCING (in thousands of dollars)				PRINCIPAL CONTRACTORS OR AGENCIES	
	Obligations	Expenditures	Unliquidated		
Through September 30, 1982	1,450	- 0 -	1,450		
Estimated Fiscal Year 1983	2,000	337			
Estimated Through September 30, 1983	3,450	337	3,113		
Projected Fiscal Year 1984	1,200	3,000	7,650		
		Future Year Obligations	Estimated Total Cost		

Academy for Educational Development, Inc.

23

PROG July 25 664315 x664328

NNNNVV 051151ERA841
RR RUD
DE RUEVO 44565 0870707
ZNR UUUUU 02H
R 062550Z APR 84
FM SFCSTATE WASHDC
TO RUD R/AMEMBASSY TUNIS 949.
INFO RUTRA/AMEMBASSY RABAT 1115
BT
UNCLAS STATE 100565

AID
INFO E/C
Chen

AIDAC FOR MISSION DIRECTOR PLIPPARD FROM AA/NE FORD

F.C. 12753: N/A
TAGS:

SUBJECT: AUTHORITY TO INCREASE TECHNOLOGY TRANSFER PROJECT (664-0315) AND PRIVATE SECTOR DEVELOPMENT AND TECHNOLOGY TRANSFER PROJECT (664-0325).

REF: (A) TUNIS 1253; (N) STATE 90927

1. COMPLETIONAL NOTIFICATION (CN) FOR DOLS 1.2 MILLION INCREASE FOR TECHNOLOGY TRANSFER (664-0315) FORWARDED TO HILL 3/12/84. WAITING PERIOD EXPIRED 3/27/84. (SEE REF B) CN FOR 300,000 DOLS INCREASE FOR PRIVATE SECTOR DEVELOPMENT AND TECHNOLOGY TRANSFER (664-0325) FORWARDED 3/26/84 WITH WAITING PERIOD TO EXPIRE 4/10/84. WE WILL ADVISE YOU BY IMMEDIATE CABLE WHEN WAITING PERIOD FOR PROJECT 0325 HAS BEEN SUCCESSFULLY COMPLETED.

2. YOU ARE HEREBY AUTHORIZED TO AMEND THE ASSISTANCE AUTHORIZATION FOR PROJECT 0315 AND, SUBJECT TO SUCCESSFUL COMPLETION OF THE CN WAITING PERIOD, TO AMEND THE ASSISTANCE AUTHORIZATION FOR PROJECT 0325 TO AUTHORIZE THE INCREASED LIFE OF PROJECT FUNDING.

SHULTZ
BT
#4565

INFO
DIR ✓
D. DIR ✓
PER ✓
PROG ✓
TRG.
TDP/PARNALTY ✓
CON ✓
HPI
S & T ✓
F & A
RD
RH/DO
P. C.
EMB/ADMIN
EMB/OSO
POL
ECON
OPR USAID
CHRON ✓
RF

Best Available Document

26

AID
CHRON

NNNNVV ESB063BRA330
PP RUDKKR
DE RUEEC #0927 0882236
ZNR UUUUU ZZH
P 282110Z MAR 84
FM SECSTATE WASHDC
TO AMEMBASSY TUNIS PRIORITY 9326
BT
UNCLAS STATE 090927

AIDAC

E.O. 12356: N/A

TAGS:
SUBJECT: TECHNOLOGY TRANSFER PROJECT (664-0315),
CONGRESSIONAL NOTIFICATION
SUBJECT CONGRESSIONAL NOTIFICATIO WAS SE T TO THE BILL ON
MARCH 12, 1984. OBLIGATION OF DOLS 1.2 MILLION FOR PROJECT
664-0315 MAY BE INCURRED ON MARCH 27, 1984. PLEASE
NOTIFY AID/W UPON OBLIGATION OF FUNDS. SHULTZ
BT
#0927

ACTION	INFO
DIR	<input checked="" type="checkbox"/>
D/DIR	<input checked="" type="checkbox"/>
PER	<input checked="" type="checkbox"/>
PROG	<input checked="" type="checkbox"/>
TRG	<input checked="" type="checkbox"/>
TDC/PARNALL	<input checked="" type="checkbox"/>
CONT	<input checked="" type="checkbox"/>
EPI	<input checked="" type="checkbox"/>
S & T	<input checked="" type="checkbox"/>
F & A	<input checked="" type="checkbox"/>
RD	<input checked="" type="checkbox"/>
FIN/DO	<input checked="" type="checkbox"/>
P.C.	<input checked="" type="checkbox"/>
ADMIN	<input checked="" type="checkbox"/>
GSO	<input checked="" type="checkbox"/>
USAID	<input checked="" type="checkbox"/>
CHRON	<input checked="" type="checkbox"/>

3cyr

7

25

Tunis, le 23/02/84

NH/LS/8I-3

Monsieur le Directeur de la Mission
Spéciale Américaine de Coopération
Economique et Technique En Tunisie
149, Avenue de la Liberté TUNIS

O B J E T : Coopération Tuniso-Américaine
Fonds de Soutien Economique
E.D.F., année 1984.

Monsieur le Directeur,

J'ai l'honneur de porter à votre connaissance que le Gouvernement tunisien propose, à la partie américaine l'affectation des Fonds de Soutien Economique, accordés à la Tunisie pour l'année 1984 comme suit :

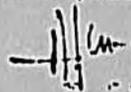
- Financement des bourses d'études pour les étudiants tunisiens aux USA = 1,2 Million \$/US (projet N° 664 - 0315).

- Apport au projet N° 664-0328 :
Transfert de Technologie et Développement du secteur privé = 0,3 Million \$/US.

Aussi vous saurais-je gré de bien vouloir porter ce qui précède à la connaissance de vos Autorités compétentes en vue de pouvoir conclure dans les meilleurs délais, les accords relatifs aux projets sus-indiqués.

En vous remerciant, Monsieur le Directeur, pour votre coopération en l'objet je vous prie d'agréer l'expression de ma considération distinguée.

Pr. le Secrétaire d'Etat auprès du
Ministre des Affaires Etrangères Chargé
de la Coopération Internationale



20 ANNEX D

A.I.D. Project No. 664-0315
Amendment No. 2
Date: April , 1984

AMENDMENT No. 2
TO
PROJECT GRANT AGREEMENT
BETWEEN
THE REPUBLIC OF TUNISIA
AND
THE UNITED STATES OF AMERICA
FOR
TECHNOLOGY TRANSFER

21

AMENDMENT No. 2, dated , 1984 to the Project Grant Agreement, dated August 31, 1981 and amended August 30, 1983 (the "Agreement") between the REPUBLIC OF TUNISIA ("Grantee") and the UNITED STATES OF AMERICA, acting through the Agency for International Development ("A.I.D.").

WHEREAS A.I.D. has agreed to provide an additional contribution of \$1,200,000 for the Project which the Parties have mutually agreed shall be used to support the Grantee's program of training students in the U.S., and

WHEREAS the Grantee is meeting its commitments to the Project, and
WHEREAS the Parties confirm their mutual responsibilities under the Project,

NOW THEREFORE the Parties agree as follows:

1. Section 2.1 of the Agreement is amended by deleting the word "advanced" from the first sentence.
2. Section 3.1. of the Agreement is amended by deleting the words "not to exceed three Million Four Hundred Fifty Thousand (\$3,450,000) United States (US) Dollars (the Grant)" and substituting in lieu thereof "not to exceed Four Million Six Hundred Fifty Thousand (\$4,650,000) United States (US) Dollars (the Grant)."
3. Section 3.2(b) is amended by deleting "Thirty-five Million, One Hundred and Ninety Thousand (\$35,190,000) U.S. Dollars" and substituting in lieu thereof "Thirty Million, Fifty Thousand (\$30,050,000) U.S. Dollars".

4. Annex 1 of the Agreement is hereby deleted in its entirety and the Annex 1 attached hereto as Attachment 1 is substituted in lieu thereof.

5. Except as amended hereby, the Agreement remains unchanged and shall continue in full force and effect.

IN WITNESS WHEREOF, the REPUBLIC OF TUNISIA and the UNITED STATES OF AMERICA, each acting through its duly authorized representative, have caused this Amendment No. 2 to be signed in their names and delivered as of the day and year first above written.

REPUBLIC OF TUNISIA

By: *Ahmed ben Arfa*
Ahmed ben Arfa
Secretary of State to the
Minister of Foreign Affairs
In charge of International Cooperation
Date: APR 27 1984

UNITED STATES OF AMERICA

By: *Norman G. Anderson*
Norman G. Anderson
Chargé d'Affaires
Date: APR 27 1984
By: *James R. Phippard*
James R. Phippard
Director
USAID/Tunisia
Date: APR 27 1984

ANNEX 1

A. THE PROBLEM

Among the matters receiving priority attention by the Grantee in the implementation of its Sixth Development Plan (1982-1986) are education and employment. Education is seen as the vital link to modernization. The Grantee annually allocates one-third of its national budget to education, making Tunisia's percent of budget invested in education and training one of the highest in the world. The Grantee is making considerable effort to relate the products of the educational system to the needs of the general economy.

As the Grantee initiates implementation of the Sixth Development Plan it is seeking new ways to address education and employment for high school and college graduates alike. At the college level, the Grantee recognizes the need to produce significantly more engineers and related technicians in the next five years. It further recognizes that its access to U.S. scientific and technological expertise through its higher education and research communities is limited. The problem for the Grantee is how best to absorb and adapt U.S. technology to meet its own educational and employment needs.

B. THE PROJECT

The Grantee has approached the U.S. Government for assistance in solving its short-term need to train more technical students overseas and its long-term requirement to strengthen its technical training capability and to develop ties between the U.S. technological community and Tunisian higher education institutions.

The Grantee has requested assistance from A.I.D. in (1) enhancement of curricula at both graduate and undergraduate levels at selected Tunisian technical institutions, (2) support of the placement process of the Grantee program for sending a large number of Tunisian students to U.S. technical schools, (3) efforts to develop and maintain institutional links between U.S. and Tunisian research communities, (4) development of institutional capacity in planning the supply of technical manpower to meet national priority needs and (5) direct A.I.D. support in the U.S. for undergraduate engineering degrees and for graduate degrees in priority development fields, such as management, computer sciences, engineering, physics, architecture and food processing.

A.I.D. has intensified efforts to support projects which are likely to produce lasting impact on Tunisian development. To this end, A.I.D. and the Grantee have agreed on this project to institutionalize technology transfer in engineering and other technical fields. During the life of the project over 385 Tunisian

students will be placed in U.S. universities at both the graduate and undergraduate levels, a manpower planning system in the fields of science and technology appropriate to Tunisia's needs will be developed and put into operation, procedures for expeditious preparation of student academic dossiers for placement in the United States will be developed and staff will be trained in placement procedures, and selected Tunisian higher institutions of technical training (as mutually agreed by the Grantee and A.I.D.) will be assisted in enhancing their curricula and teaching methodologies through short-term consultants and through the presence of visiting U.S. professors.

The project will be implemented through the Office of International Cooperation (DCI) of the Ministry of Higher Education and Scientific Research (MHESR). This office will cooperate closely with the Directorate of Higher Education and the Directorate of Scientific and Technical Research (both of MHESR), the Scientific Mission of Tunisia in Washington, D.C., the Manpower Planning Office of the Ministry of Plan and appropriate offices within the Ministry of National Economy and other Ministries as required. The role of these ministries will focus primarily on inputs to manpower planning in technology fields and on some placement of students.

Technical assistance will be provided to the Grantee through a host-country contract with a qualified U.S. university, firm, organization or consortium of such organizations, and through additional contracts as required. The former will provide both long-term and short-term assistance in Tunisia and in the United States, while the latter will assist the Tunisian Student Placement Service in Tunis with the processing of student dossiers for placement in the United States.

C. Project Components

The project will provide technical, material and financial support to Tunisia's Ministry of Higher Education and Scientific Research: (1) to develop a manpower planning capability to estimate and plan for the future human resource needs of Tunisia, expanding Tunisian scientific and technical institutions in a pattern consistent with Tunisian development priorities, (2) to direct selected Tunisian students in scientific and technical fields to appropriate institutions and fields in the U.S., (3) to provide U.S. professors who will assist Tunisian educational institutions, upgrade curricula and pedagogic methods, organize research and teach selected courses, and (4) to support the training of selected Tunisian students in the U.S. in fields of high development priority. In carrying out these activities emphasis will be placed on appropriate and development related applied technology, and on the establishment of lasting professional linkages between Tunisian and U.S. institutions.

The project will consist of the following components:

1. Manpower Planning

Currently Grantee manpower planning is carried out on a macro scale by the Directorate of Manpower Planning of the Ministry of Plan. The sources of data for the work of the Directorate are the other line ministries, primarily through their statistical and planning units. For the Ministry of Higher Education and Scientific Research (MHESR) the institutional link with the Ministry of Plan is the Office of Planning, Statistics and Data Processing. A major responsibility of this office is to determine demand by academic field for higher education. The determinations are based on manpower requests from each ministry and also serve as the starting point for planning for faculty and facilities required to meet the demand for training.

This component of the project will assist the MHESR and MP to develop and put into operation a manpower planning system that is commensurate with the Grantee's needs in the fields of science and technology. Early in project implementation a manpower planning task force made up of representatives from the MHESR, the MP, the Ministry of National Economy and ad hoc members from other relevant ministries, and the long-term advisor or other host-country contractor's representative will be created and will direct technical manpower planning in higher education for the MHESR. Its initial task will be to identify short-term technical assistance needs to strengthen the MHESR manpower planning capacity in science and technology and to examine the feasibility of adapting the MP manpower planning model to the forecasting requirements of the MHESR, thereby establishing a planning system capable of working with supply and demand projections in all technical fields.

The scheduling and monitoring of the short-term consultants in manpower planning will be the responsibility of the long-term advisor and the principal counterpart, the Director of International Cooperation (DCI) of the MHESR. However, the task force will be the principal beneficiary of the short-term manpower planning assistance provided by this project and will be the channel through which the consultants will provide assistance to obtain data from other ministries involved with technical manpower, as either suppliers or end-users.

2. Student Placement

At the request of the Government of Tunisia, the MHESR has embarked on a program to send a large number of Tunisian undergraduate and

graduate students to the United States for academic training in technical fields. Approximately 214 students were placed in the United States for academic year 1981-82, before A.I.D. assistance began, and 91 and 80 were placed in 1982-83 and 1983-84 respectively. The Grantee now proposes to place an average of 80 students per year during each of the remaining years of the project. Prior to departure they will receive English language training at the English Language Center recently established by MHESR or through secondary school curriculum modification which the Grantee may arrange.

A.I.D. financing of this component will include technical assistance to the Grantee in placement of students for academic studies in engineering and other technical fields. A short-term advisor in Tunis will work with and train the staff of the MHESR in the design of a system to place Tunisians in U.S. technical institutions and in the preparation of student academic dossiers necessary to make application to U.S. institutions.

His/her principal counterpart will be the Chief of the new Service for Student Placement in the United States, who will be responsible for the preparation of documentation for U.S. placement of Tunisian students. This service is being created separately from other services within the DCI which handle foreign placement of students because the size of the new program is substantially larger and much more complex than the previous experience of the DCI in student placement abroad. In addition, the MHESR has created the Scientific Mission of Tunisia in Washington, D.C. to service the participants of this project and to develop institutional contacts and exchanges. This office is staffed by a Tunisian director and a deputy director qualified in student placement, administration and counselling and familiar with Tunisian technical schools. A.I.D. financing will provide for a long-term consultant in Washington to assist this office to develop a comprehensive placement, counseling and student orientation program. This office began activity in the spring of 1982 and is expected to continue at a minimum until December 1985.

3. Strengthening Tunisian Scientific and Technological Academic Institutions

The function of this component is to strengthen the institutional capacity of Tunisia's advanced technological training institutions through the integration of U.S. technical curricula and teaching methods in undergraduate and graduate programs of selected technical institutions. As mutually agreed by the Grantee and A.I.D. such development will take place at three different levels. First, it will assist at the national level through the provision of technical assistance to the Directorate of Higher Education of MHESR to address questions such as degree equivalency and institutional growth patterns.

Second, at the institutional level it will provide 54 person months of senior level visiting U.S. engineering professors. This will expose Tunisian faculty to U.S. curricula and pedagogic methods at several engineering schools and will foster long-term institutional and professional contacts. An important objective of the project is the establishment of professional and institutional linkages between Tunisian and U.S. institutions of higher technical education. To this end, the project resources will be used to promote an institutional tie between each Tunisian institution assisted and a specific U.S. academic institution, and to the extent practicable the flow of visiting U.S. professors and Tunisian administration faculty on study tours will occur between paired institutions.

Third, at the classroom level it will provide in-service training of Tunisian counterparts on a one-to-one basis by the visiting professors. Each professor will be assigned one or more counterpart faculty members who will work with him/her during his stay and who will be expected to take over any courses and research programs established by him. This component will also introduce new course content, teaching strategies and teaching materials through inputs of short-term consultants.

A final feature of this component deals with the limited access of Tunisian officials in higher education to U.S. technology and the U.S. higher education system. A.I.D. will finance the cost of course materials and travel within the United States for approximately 22 short-term study tours by Grantee administrators or senior professors associated with advanced training in engineering and related fields. These trips will enable the Tunisian scientific and technological leadership to develop an understanding of how best to transfer U.S. technology to their institutions and to initiate what is intended to be lasting personal and institutional relationships with U.S. professionals. The selection of participants will be determined by the Grantee's project manager in consultation with the long-term advisor(s).

4. Training Program

This component will provide A.I.D. financing to the ongoing U.S. training program operated by the Tunisians. A.I.D. will finance approximately 310 person-years of training for engineering undergraduate degrees and graduate degrees in development priority fields such as management, computer sciences, engineering, architecture, food processing, physics, and other fields as the parties may agree. A.I.D. will finance tuition, books, maintenance expenses, transportation within the U.S., health insurance, and other expenses normally paid for A.I.D. participants. The Grantee will be responsible for international transportation of the A.I.D. financed students, as well as all costs for the non-A.I.D. supported students.

D. PROJECT IMPLEMENTATION

1. Project Committee

Because the activities of this project involve more than one ministry, and in the case of MHESR multiple offices within a single ministry, a committee will be established to guide the effort. The committee will be chaired by the Director of International Cooperation (DCI) of MHESR and will include the Director of Higher Education, the Director of Scientific and Technical Research, and the Chief of the Service for Student Placement in the United States (all of MHESR), and representatives from the ministries of Plan (MP) and National Economy. It will meet periodically and its particular role will be to provide overall policy guidance and to assure coordination among key project components such as the placement of U.S. faculty members, recruitment and predeparture preparation of participants, utilization of short-term technical assistance and the functioning of the manpower planning task force. The contractor's long-term advisor will act as a technical advisor to the committee and will coordinate the technical assistance provided by this effort for the life of the project.

2. Manpower Planning Task Force

A second body that will be established and which will have a role in the project will be the Manpower Planning Task Force. This task force will be the meeting ground for the producers and end-users of technically trained manpower. Among its members will be the A.I.D. funded contractor's long-term advisor, the Director of Higher Education of MHESR, the head of the statistical and planning unit of the same office, a member of the manpower planning unit within the MP, a representative of the Ministry of National Economy and ad hoc representatives of other ministries as required.

This task force will determine the appropriate mix of consultant expertise to be provided by the project to (a) develop the MHESR manpower planning capability in science and technology and (b) if found appropriate by the MHESR, to adapt, select, or develop a manpower-planning model to be compatible with current MHESR procedures. In the long-term it is expected that this task force will become a permanent body gradually expanding its sphere of activity until it provides guidance on technical manpower planning for all sectors of the Tunisian economy.

3. Project Coordinator

The project will be administratively located in the MHESR. The Tunisian project coordinator will be the Director of DCI of MHESR who within the organizational structure of the MHESR reports directly to the Minister. He will either manage the details of the project or delegate authority to manage such details, and he will chair the project committee, sign vouchers and resolve issues as they may arise among the heads of the technical offices involved with project implementation.

25

For discrete project activities the project coordinator will designate operational responsibility to the heads of various organizations within the MHESR. For example, the Directorate of Higher Education of MHESR will be the office involved with the placement of visiting professors in Tunisians technical institutions, the selection and assignment of short-term technical experts, and the handling of degree equivalency issues. The determination of the numbers of students who are to be sent for training in the United States, their fields of study and the process for selection of candidates for placement, and general curriculum development and planning for institutional growth is the responsibility of the Cabinet of the Minister of MHESR. Moreover, the project coordinator will be the principal representative of MHESR in dealing with the MP in manpower planning efforts.

4. Service for Student Placement in the United States

Preparation of academic dossiers for students prior to their departure will be the responsibility of the newly created Service for Student Placement in the United States. This service will be located in the DCI of MHESR. It will be staffed by a Chief of Service, a professional assistant with expertise in student dossier preparation and a secretary, and the service will report directly to the project coordinator, the Director of DCI of MHESR. This service will be parallel to but outside of other student placement units supervised by the Deputy Director of DCI which are also involved with the placement of students in universities overseas. The rationale for creating a separate service with a unique reporting arrangement is a result of the large volume of students that will be processed and the complex placement information required by U.S. universities. Moreover, it attests to the importance placed on this effort by the Grantee.

5. The Scientific Mission of Tunisia

The Scientific Mission of Tunisia has been established in Washington, D.C. and will work directly with the Student Placement Service in Tunis. It will be directly responsible for fostering long-term educational exchanges with U.S. universities and in that sense will have a much broader mandate than student placement. However, one of its major responsibilities will be to provide for the orientation and placement of more than 385 students to be sent to the United States during the life of the project. It will be staffed by a Director and a Deputy Director who are both senior level professionals knowledgeable of the Tunisian technical higher education system. It is expected that the Director will concentrate

36

on establishing long-term contacts with U.S. universities while the Deputy Director focuses on matters of student placement and orientation. This office is responsible to the Minister, but on practical matters affecting student placement it will report directly to the project coordinator, the Director of DCI of MHESR. It will have its own operating budget, including funds for office space, a secretary, and operating expenses. U.S. financing will support the provision of a long-term (30 month) technician to assist this office to implement workable orientation and placement procedures, the organization and support of student orientation seminars, and the development of a computerized data base and data management capability for this office.

6. A.I.D. Training Costs

A.I.D. will finance approximately 310 person-years of training for approximately 385 Tunisian students pursuing academic degrees. A.I.D. will provide \$3,200,000 for this purpose to the Grantee. The allocation of these funds will be as follows:

a. Approximately \$594,000 for the 62 Tunisian students who studied in the United States during the 1982-83 academic year.

b. The balance of funds will be disbursed for Tunisian students in the United States in academic year 1983-84.

c. Disbursement procedures and documentation requirements have been detailed in Project Implementation Letter Number 5 of August 30, 1983.

E. PROJECT INPUTS

The total cost of this project is estimated at U.S. \$34,700,000. Of this total U.S. \$4,650,000 will be funded by A.I.D. with the balance (equivalent to U.S. \$30,050,000) contributed by the GOT. A.I.D. financed inputs include technical assistance and training. The Grantee will provide Tunisian staff and office space, both in Tunisia and in the U.S., facilities for in-country language training, international travel for Tunisian students, all tuition maintenance and fees for Tunisian students, international travel for all but 11 of the Tunisian administration and faculty members visiting the United States under study tours, and local transport and logistical support for visiting U.S. faculty members and technical specialists.

1. AID Inputs

a. Technical Assistance

A significant portion of the A.I.D. inputs to this project will be the financing of a host-country contract for technical assistance with a U.S. university, firm, organization or consortium of such

organizations. This assistance will include a long-term advisor in Tunis and/or an intermittent visiting advisor or set of intermittent advisors, the exact mix to be agreed upon between the GOT and their contractor and concurred in by A.I.D. He/she will have as a counterpart the Tunisian project manager, the DCI of MHESR, and will work closely also with the Director of Higher Education, MHESR. He will coordinate implementation of the key elements of the project, including refinement of manpower planning methodology, assessment of the needs of the technical and engineering faculty curricula, recruitment of U.S. visiting professors, and placement and supervision of project-financed short-term consultants. An advisor or advisors will be involved on a continuing basis through the life of the project and will have a background in engineering with relevant experience in teaching and university administration.

Another part of the host-country contract will provide approximately 33 person-months of short-term technical assistance. These consultants, under the guidance of the contractor's advisor(s), will provide expertise on curriculum reform, teaching methodology, manpower planning, library development, and other technical and administrative matters as determined to be useful. Under a separate contract A.I.D. will fund a short-term student placement specialist in Tunis. He/she will train the staff of DCI, MHESR in establishing a student academic dossier transfer system in cooperation with the Scientific Mission of Tunisia.

Another part of the host country contract will provide approximately 54 person-months of short to medium term visiting professors. These professors, under the guidance of the contractor's advisor(s), will teach courses, conduct faculty and student seminars, organize and oversee student research and otherwise provide expertise in technical training and the transfer of American teaching and research methods by instruction and by example, as determined to be useful.

Also financed under the host-country contract will be the services of one foreign student specialist for 30 months who will be stationed in Washington, D.C. in the Scientific Mission of Tunisia. This specialist will provide assistance to the office in organizing and operating a large-scale placement and follow-up system in support of Tunisian students.

b. Training

The largest component of A.I.D. funding will be used for training and will total U.S. \$3,340,000. This component will consist of \$3,200,00 for approximately 310 person-years of training benefitting an estimated 385 Tunisian students in the U.S., and of \$140,000 for about twenty-two short-term study tours for Tunisian higher education administrators and academics. The purpose of the tours will be to provide key Tunisian

-10-

officials with exposure to contemporary technology training methods in the U.S. and the opportunity to establish long-term personal and institutional ties with the U.S. technology and higher education communities.

2. Government of Tunisia Inputs

The Grantee will contribute approximately 87 percent of the total dollar value of this project. The Grantee will pay the recurring costs of the Student Placement Service within DCI, MHESR, the start-up and recurrent costs of English language training and the recurrent costs of the Scientific Mission of Tunisia in Washington, D.C. The English Language Training Program, the Service for Student Placement in the United States and (in terms of its major task) the MHESR Office in Washington have been created at the initiative of the Grantee specifically in order to support the larger program of an increased flow of Tunisian technical students to the United States.

The Grantee will provide total academic and personal financial support, including international travel, for Tunisian students sent to the U.S. The Grantee will furnish complete administrative and logistical support for the long-term advisor(s) and for the short-term student placement consultant to the office of the DCI, MHESR and will provide administrative support for the long-term advisor to the Scientific Mission. Finally, the Grantee will provide local transportation for 54 person-months of visiting U.S. professors and will provide administrative support at their host Tunisian technical institutions, and to the extent that budgetary resources are available the Grantee will pay locally based salary and/or per diem for professors visiting a semester or longer.

F. PROJECT BUDGET

1. AID Expenditures

The total A.I.D. contribution is U.S. \$4,650,000 estimated to be allocated as follows:

- | | |
|--|------------|
| a. Long-term Advisor(s) 20 person-months of services: | \$ 140,000 |
| b. Technical assistance to the GOT/MHESR Washington Office, 30 person months of resident advisor on student placement: | \$ 154,000 |
| c. Technical assistance to the GOT in Tunis on student placement: | \$ 20,000 |
| d. Short-term academic consultative services, 33 person-months, including project assessment | \$ 225,000 |

e. Visiting U.S. faculty, 54 person months:	\$ 333,000
f. Short and medium term tours in the U.S. for Tunisian faculty and administrative officials, 22 visits:	\$ 140,000
g. Equipment, mini-computer, vehicle, office equipment etc.:	\$ 40,000
h. Orientation of Tunisian students in the U.S.:	\$ 64,000
i. Contractor home office technical support and project coordination in Tunis:	\$ 112,000
j. Contractor overhead and fee:	\$ 222,000
k. Academic Training:	<u>\$3,200,000</u>
TOTAL	<u>\$4,650,000</u>

2. Government of Tunisia Expenditures

The total Grantee contribution is estimated to be the equivalent of US \$ 30,050,000, to be allocated as follows:

University and Scientific Mission of Tunisia
(January 1982 - December 1984)

Salaries	200,000	(Tunisian Dinars)
Office and Overhead	150,000	
Travel and Communication	<u>50,000</u>	400,000

Salaries

Management, 36 months	28,800	
Chief, Student Placement Service, 36 months	18,000	
Staff, Student Placement Service, 36 months	14,400	
Secretary, Student Placement Service, 36 months	10,800	
Institutional Counterpart to U.S. Technicians, 23 mo.	11,500	
Statistical and Planning Unit Chief, 36 months	18,000	
Staff, 36 months	14,400	
Secretary, 36 months	10,800	
		126,700

-12-

Logistical Support

Communications	1,300	
Reproduction	2,000	
Translation Services	5,000	
Local Transportation and Perdiem	5,000	
International Transportation and Perdiem	15,000	
Conference Facilities	<u>20,000</u>	48,300

English Language Training

Salaries of Teachers	24,000	
Scholarships	29,000	
Housing and Food	45,000	
Management Salaries	10,000	
Materials and Equipment	100,000	
Contingencies	<u>42,000</u>	250,000

U.S. Professors in Tunisia

Local transportation, logistical support, base salaries, and/or perdiem (as appropriate) for 54 person-months of visiting US professors		<u>75,000</u>
--	--	---------------

<u>Subtotal</u>	TD	900,000
-----------------	----	---------

At US\$1.00 = TD 0.720, the GOT contribution equals: \$		1,250,000
---	--	-----------

Academic Training

Based on actual costs of \$9580 per student year for academic year 1982-83, allowing for 10% per annum inflation in costs, assuming that 75% of undergraduates continue for a 2 year MS degree, and assuming an additional 80 new starts in academic years 1984-85 or a total of 465 students in degree programs, the estimated cost to the Grantee to complete the degree programs of those 465 students (less the \$3,200,000 AID contribution) is:

	\$	<u>28,800,000</u>
--	----	-------------------

<u>Total Government of Tunisia Expenditure</u>	\$	30,050,000
--	----	------------

<u>Project Total</u>	\$	34,700,000
----------------------	----	------------

G. PROJECT EVALUATION

Because the AID project is integrated with a large and growing GOT program of technical training in the U.S., and because the system of technical higher education is in a period of change requiring periodic adjustment to the nature of assistance given it for maximum effectiveness, AID and the GOT have concluded that the interest of the project is better served by a larger number of informal joint project assessments rather than by the more conventional mid and final project evaluations.

Three assessments are scheduled for the project, those done in September 1983, and in March 1984 near the mid-point of the project, and another at the end of the project in June 1985. Additional assessments may be scheduled as mutually agreed. Assessments are undertaken collaboratively by representatives of the contractor, the GOT and A.I.D. A.I.D. funds for project assessment are included within the project and the resulting host-country contract. The assessments will take place concurrently with project implementation and there will be no delay in on-going project activities.

1. Timing

The first assessment took place in September 1983 and the second took place in March 1984 at a time when the project had been active through one and a half academic years. This timing allows the assessment to evaluate the function and effectiveness of the student placement and orientation system and the visiting professor program. In future assessments interviews should be held with Tunisian students returned from training and with both U.S. and Tunisian faculty members who have been involved in the program.

At the time of the second assessment the Manpower Planning Task Force had been established for one year and short-term technical assistance to the task force had been initiated six months before. The role and capability of the task force should therefore have been clear by the time of this assessment. Technical assistance in curriculum development for the technical institutions had also been in progress for over a year, and the impact on the curricula planned for the fall of 1984 was examined. All policy issues within the project, such as the process for degree equivalency advance evaluation and the role of the Manpower Planning Task Force, should have been clearly defined by the time of the mid-project assessment, and it should recommend any mid-project corrections to be implemented during the balance of the project.

The final project assessment is scheduled for June 1985 and will focus on the effectiveness of methods and procedures used during the project to augment Tunisian technical training capacity and to improve manpower planning capability. It will make recommendations for future actions to be taken by the GOT. It will also examine the success of the training programs.

2. Criteria

The success of the project will be judged along two major dimensions:

a. The efficiency of the project will be seen in whether or not contributions have been made on schedule, technicians have arrived when needed, prescribed roles have been carried out, administrative units, committees and task forces have been established and staffed, resources have been properly managed, U.S. professors have been placed, students have been enrolled and a number of other actions described by the project have been carried out as projected. The criteria to be applied here focus on whether or not obligations have been met and prescribed actions have been carried out in a timely manner.

b. The effectiveness of the project is measured along a very different dimension. Here one must look at issues such as the degree to which U.S. faculty members have been integrated into Tunisian faculties and properly utilized, the effectiveness of the Manpower Planning Task Force and its acceptance by MHESR and other involved ministries, the impact of academic technical assistance on curricula and pedagogical methods, and the degree to which any such impacts appear to affect institutional operation and the quality of technical education. The criterion applied here is the impact of the various project elements and the apparent desirability of such impacts. The assessment should not hesitate to recommend termination of an ineffectual project element, and should make constructive recommendations for new or altered actions, either for the remainder of this project or to be carried out in the future by the GOT.