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PD-AAQ-073

ISN 26977

PROJECT TITLE:	West Bank and Gaza Development Assistance (Fiscal Year 1979)
PROJECT LOCATION:	West Bank and Gaza Strip
PVO NAME AND LOCATION:	American Near East Refugee Aid Washington, D. C. and East Jerusalem
HEADQUARTERS:	900 Woodward Building[1] 733 Fifteenth Street, N.W. Washington, D. C. 20005
CONTACT PERSON:	Peter Gubser President
DATE OF SUBMISSION TO AID:	June, 1979
TOTAL REQUEST:	$3,031,400

[1]After September 1, 1979:

1522 K Street, N. W., Suite 202
Washington, D. C. 20005
347-2558

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I. INTRODUCTORY NOTES

A. Introduction

The individual proposals for subgrants are found in section "II" of this general proposal.

The individual proposals were prepared in the AID accepted "Care Multi-Year Planning Project Proposal Format" with slight adjustments which make the Format conform to the needs of these particular proposals.

B. Considerations Raised from ANERA's Previously Funded Proposals

1. Loans versus Grants

AID reviewers of ANERA's proposal of last year noted that some of the subgrants should have been loans. ANERA staff agrees with this judgment and had definitely been aware of it at the time the subgrants were being developed. Due to local constraints, substantial loans in place of subgrants were and are not possible at this time.

In response to AID comments on last year's proposal, ANERA probed broadly in an attempt to find an acceptable means for development loan making and servicing. In this process, ANERA looked into both internal and external institutions and mechanisms. Despite these efforts, no viable means were found. Upon request, ANERA staff would be pleased to provide AID with details of these efforts.

ANERA continues to explore in this area and will keep AID informed of positive developments.

2. Regional Planning

The need for a greater level of regional planning for the

West Bank and Gaza has been expressed by Congress and AID officials. ANERA has been involved in such efforts in various ways.

-- ANERA staff closely coordinates its activities with other PVOs (both AID and non-AID funded) working in the area. We attempt to make certain that overlap in programs is minimal, all regions of the area are covered, and all major relevant sectors and functions in the society are addressed, albeit in a very modest fashion. This coordination is executed via frequent meetings and continual review of each other's programs.

-- The reader will note the integrated, coordinated and complementary nature of a number of the subgrants in last year's and this year's proposals. Many of the previous and currently proposed subgrants build upon each other. Also, as the reader will observe, they mesh with the plans of relevant authorities where appropriate. This pattern will be continued in the coming year.

-- ANERA staff would be pleased to discuss with AID officials other forms of current and future planning which ANERA is undertaking.

3. Waiver

ANERA hereby requests, as suggested by AID, a waiver so that this proposed grant, which exceeds $250,000, would fall under the rules for grants of less than $250,000 as described in "Attachment 2. Specific Support Grant, September 1977 (OTEI), as amended (Supplement), August 1978".

The rules here cited will facilitate ANERA's execution of the grant, and, more importantly, they will facilitate the operations of the subgrantees themselves.

C. Conversion Notes

1. 1 hectare=10 dunums; 1 acre=4 dunums

2. Israeli currency rapidly declined in value vis-a-vis the U. S. dollar during the past year as these subgrant proposals were prepared. The rate went from around 15 to 25 Israeli pounds to the dollar. The rates used in the various subgrant proposals are noted within the relevant text.

D. Implementation Plan

ANERA modus operandi is to work with existing indigenous institutions in the West Bank and Gaza. The proposed FY 1979 ANERA project will have two stages:

1) Completion of a Grant Agreement between AID and ANERA.

2) Completion of a Sub-Grant Agreement between ANERA and each of the Sub-Grantees.

Upon completion of the Sub-Grant Agreement between ANERA and each participating institution, the institution will be expected to submit a detailed implementation plan for the project, including budget, timetables, staff involvement, sketches of construction anticipated, and other pertinent details.

Implementation Schedule: On the assumption that the FY 1979 ANERA/AID grant agreement will be signed by.....September 30, 1979, and that a Federal Reserve Letter of Credit for the full amount of the grant is opened in ANERA's favor and that grant funds are made available* to ANERA (at the latest) by.....October 30, 1979,

*Three quarters of the operation expenditures to be available to ANERA by October 30, 1979. See section III, D below.

the following schedule of implementation is proposed:

1) sub-grant agreements will be signed by representatives of ANERA and the sub-grantee organizations between.....October 30, 1979 and March 1, 1980,

2) implementation plans and target dates for the use of grant funds will be submitted by sub-grantees to ANERA by.....April 30, 1980, and by ANERA to AID by.....May 30, 1980,

3) ANERA disbursements to sub-grantees (in one or two increments to each) will be completed by.....May 30, 1980,

4) interim evaluations of implementation progress for each sub-grant will be submitted by ANERA to AID on or by.....November 31, 1980,

5) sub-grantee projects funded by this grant will be completed by.....April 30, 1981,

6) a final evaluation report for each sub-grantee project will be submitted by ANERA to AID by.....July 31, 1981,

and 7) a final report on the utilization of grant funds will be sent by ANERA to AID by.....October 30, 1981.

Title: HALHUL AGRICULTURAL COOPERATIVE -- LAND RECLAMATION

I. INTRODUCTION

At one level, the purpose of this grant/project would be to aid the Halhul Cooperative in its efforts to provide land reclamation services for its members and the villagers of the area it serves. At another level, the purpose is to enhance the incomes of two groups by improving the productivity of part of their land currently under cultivation and bringing more land into production via reclamation. Another intended effect is to encourage some farmers who would otherwise leave, to remain on their farms by providing more and improved land for them to cultivate. Added food production for local consumption and export would also be an effect.

This project is directly comparable to last year's project in Tarqumiya and this year's proposed project in Dura. Grouped together, these three projects should provide basic mechanized services for all the farmers of Hebron District. Similar projects are being or will be proposed for the Ramallah and Nablus Districts.

The beneficiary target groups are two. First, 80 members (expected to increase to 330 in two years) of the Halhul Cooperative from the four-village area which it serves, would be one target group. They would receive the services as well as enjoy the benefits of a strengthened cooperative. Second, around 3500 non-Co-op member farmers in the four villages would be able to employ the services of the Cooperative. It is projected that circa 60,000 dunums (10 dunums =

1 hectare) would be reclaimed over 20 years.

The Cooperative's contribution towards the project would constitute 45% of the total capital cost; ANERA would contribute 55%.

Halhul is a small town (or large village) located in the Hebron district six kilometers to the north of Hebron City.

ANERA's official relationship to the project would last one year. The Cooperative then would continue on its own indefintely. It intends to set aside funds regularly so as to be able to replace equipment as needed.

II. Project Design

Statement of Problem(s)

The problem involves low- or non-productivity of two categories of land which results in the deprivation of income for the farmers who cultivate this land. The two categories of land are (1) that which is currently tilled, but is of low productivity due to improper slopes, rockiness, and erosion and which also requires crop substitution and (2) that which is currently uncultivable due to rocks and slopes.

The inability of the farmers to improve the productivity of their land without mechanized land reclamation efforts results in a very low per capita income. Table No. 1 demonstrates that position of the villagers:

Table No. 1: Computation of Average per Capita Income from Agriculture[1]

1977 Data

	Population	Total Cultivated Area (Dunum)	Dunums Per Capita	Dunum Average Income US $ (2)	Per Capita Income US $ (2)
Halhul	10,000	15,000	1.5	150	225
Beit Ummar	5,000	12,000	2.4	100	240
Si'ier	6,000	25,000	4.0	60	240
Al-Shuoukh	4,000	4,000	1.0	60	60
Total	25,000	56,000	2.2[1]	92.5	191
Unweighted per Capita Income from Agriculture					203
Weighted Average Per Capita Income from Agriculture					205[1]
Weighted Average Per Capita Income					256[3]

(1) Population weighted

(2) Rate IL 3000 = JD 50 x 3

(3) a - Based on GDP of the area: 80% Agriculture
10% Industry 10% Services

b - Less income from abroad

The average weighted per capita income is US $ 256, as indicated in Table No. 1. This figure is less than the standard minimum of the United Nations of $300 for developing countries. Under these considerations the area would be, at best, classified in the category of the United Nations "Least Developed Countries."

This low income level, aside from the pure humanitarian concern it involves for the needy, results in the emigration of manpower from the region and deprives the region of surplus capital for self-generated development. The non- or low-productivity of potentially more productive land also hinders the farmer in his/her ability to

meet the needs of the local and export markets.

Final Goals

The Halhul Cooperative intends to have three separate sections/ functions:

1. Agriculture machinery unit for land reclamation.
2. District supply center stocking fertilizers, sprays, small machinery, (pruning equipment, small sprayers, etc.).
3. Wholesale marketing assistance via a rented shop in the new Halhul wholesale fruit and vegetable market which is partially funded by an ANERA/AID grant.

ANERA via this proposed project/grant would be involved solely in the machinery unit. The Cooperative's machinery unit is designed to achieve two goals:

1) to allow the members of the Cooperative to reclaim marginal currently unproductive land, and
2) to serve as a regional machinery unit for all the farmers in the region.

Given the size (see below) of the proposed unit, it is expected that farmers will be able to reclaim 800 dunums per year using its machinery. The average annual need for land reclamation in the Halhul region is estimated at 2800 dunums per year. Current land reclamation services in the region are running at the rate of circa 1000 dunums per year. Consequently, the demands for the services of the unit will be substantial, since there would be an excess

demand of 1800 dunums to be reclaimed yearly.

Table No. 2: Land Reclamation Requirements in the Halhul Region

Land Category	Percent	Percent	Dunums	Dunums
Total Arable Land	100%		120,000	
Currently Cultivated	50%		60,000	
Reclaimable Uncultivated for Agriculture		30%		35,000
Reclaimable Uncultivated for Forestry		20%		25,000
10% of Currently Cultivated Needing Crop Substitution(1)		5%		6,000
Total Land Reclamation Requirements		55%		56,000
Land Reclamation Requirements for Agriculture		35%		41,000

(1) Bulldozer required for land improvement and crop substitution.

The figures in Table 2 are approximate. They do demonstrate a significant need for heavy land reclamation. At a rate of 2800 dunums reclaimed per year, the bulk of the reclaimable land could be brought into production in 20 years. The above would require the services of a bulldozer and tractors. The tractors would also service considerable land which requires lighter work for crop substitution.

The direct effect of the proposed project would be an expected increase in the per capita income, since the income of the people in the area is limited proportionally to the cultivated area. Thus, any increase in the cultivated area would have a direct effect on income.

Table No. 3: Estimated Effect of Land Reclamation on Per Capita Income -- One Year[1]

	Current	+	Increased
Total Population	25,000		-
Cultivated Area	56,000[2]	2800	58,800
Dunum per capita	2.2	0.112	2.312
Income of one dunam/US $	92.5	10.36	102.86
Income per capita/US $	256		266

(1) The above table assumes that the total land reclamation requirements will be met. The proposed project would only meet a portion of the requirements.

(2) See Table No. 1.

Looking at the potential effect of the proposed project from another level, the farmers would be able to bring into cultivation about 800 dunums per year. The use of this yearly increment of land, based on recent farming practices, would be as follows:

Table No. 4: Planting Projections

Type of Crop	Seedlings in 1 Dunum	No. of Dunums	Percent of Total
Grape - vines	50	400	50%
Stone-fruits	40	160	20%
Olives	20	160	20%
Apples	40	80	10%
Total	Average	800	100%

Another activity, albeit short term, is the infiltration of vegetables between newly planted trees. The usual recent practice of this agricultural technique is as follows:

Table No. 5: Infiltration with Vegetables

Crop	Number of Years after initial tree/vine planting
Grape-vines	3
Stone-fruits	3
Olives	5
Apples	4

In sum, with the aforementioned unit, the Co-op will be able to provide land reclamation and improvement services to its members and non-member patrons. This is a service the Co-op will provide indefinitely, setting aside funds for equipment replacement as needed. Consequently, year by year additional land will be reclaimed and improved which, in turn, will lead to improved income year by year for the 330 Co-op members and 3500 non-member farmers. In addition, incrementally one will observe the improvement of agricultural production in the area served by the Co-op.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff hired, and the agricultural machine unit made an operating division of the Cooperative. The Cooperative will then operate the unit indefinitely.

III. Project Overview and Strategy

The Halhul Agricultural Cooperative was founded in 1953 and is still registered in Jordan. Since 1967 the Cooperative was dormant due to prevailing conditions in the West Bank. Since mid-1978,

Cooperative members together with the Cooperative Department in Hebron and the Mayor of Halhul took the initiative to reactivate the Cooperative and to initiate a machinery unit project to cover the needs for land reclamation in the Halhul region.

In the mid 1960s, a plan to strengthen agricultural cooperatives was devised. The basic thrust of the plan was to liquidate small, weak cooperatives and gather the membership in potentially stronger regional cooperatives. The latter were to be established in Tarqumiya, Dura, Samua, Halhul and Hebron.

The land reclamation projects in Tarqumiya, Dura and Halhul, in which ANERA is currently involved, are part of the implementation of this plan. These three complementary projects are proposed to cover the Hebron area with agricultural machinery services. These projects are expected to build an extra basis for the proposed Hebron-Bethlehem Regional Cooperative Plant Nursery and for the Hebron Agricultural Canning/Bottling project in which ANERA is currently involved and intends to propose next year.

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. On a specific level, one might predict

that the Co-op's agricultural machine unit might put individual entrepreneurs out of business. This is not the case according to numerous observers of the area as well as the land reclamation requirements/demands noted above. There exists sufficient work for all; currently few enterpreneurs are operating in this field of activity.

The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process that has already commenced. This is the mechanization/modernization of agriculture. The farmers definitely appreciate the value of appropriate agricultural machinery, and realize this will have an impact on their lives, a positive one in their minds.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, i.e., the continued operation of the mechanized agricultural unit, is assured in three ways. First, the Co-op will be covering all administrative costs. Second, the Co-op will be paid for the services rendered. Third, the Co-op will set aside an adequate portion of its income from the unit for necessary replacement of equipment. Technically, the equipment is not difficult to operate and repair. Sufficient skilled operators exist in

the West Bank. Major repair facilities are being developed under another ANERA/AID grant (FY 77, $50,000) at the Al-Bir Society, Jericho. Minor repairs can be executed in Halhul and nearby Hebron.

For a financial analysis, see below.

Project Potential

From a technical viewpoint, this project could be replicated by any medium- to large-sized cooperative. From a demand standpoint, observers (including ANERA) note that a high proportion of the farmers wish to improve and reclaim land. Those entrepreneurs with equipment work continually in the region: the demand is high. The major constraint to replication is the availability of capital. If this constraint could be surmounted, the project could be replicated.

Project Constraints

None are foreseen at this time.

Project Summary -- Five AID General Criteria for MESRF Grants

(1) Development -- Yes. For details, see above.

(2) Training -- No.

(3) Poorer elements -- Yes. For details, see above.

(4) Self-sufficiency -- Yes. For details, see above.

(5) Self-help/complement local efforts -- Yes. For details, see above and the budget, below.

IV. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project and the rebirth of the dormant Cooperative. Technically the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Cooperative Management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is hiring a staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the operation of the unit which will continue indefinitely. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designed to help the Halhul Cooperative establish an agricultural equipment and services unit. All the machinery to be purchased is relatively commonplace. Many West Bankers are familiar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below please find a list of the machinery and equipment to be procured under this project.

Machinery and Equipment	Costs
1) 1 Bulldozer	US $ 60,000
2) 2 Field Crop Tractors at $11,000	$ 22,000
3) 3 Orchard Tractors at $14,000	$ 42,000
4) Equipment for field tractors (10 items).	$ 24,000
5) Equipment for Orchard Tractors (8 items).	$ 25,000
Total	$173,000

The project also includes the construction of a building and purchase of stores @ $47,000.

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The Cooperative will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Cooperative will provide its own personnel for the unit as follows:

1) 1 Manager (Agronomist)
2) 1 Accountant
3) 1 Watchman
4) 6 Tractor Drivers

Table No. 7: Machinery Operation - Income (Est.)
In IL./1977 Prices

Machinery	Operation Period			Income per Hour	Annual Income
	Months	Days	Hours		
1) Bulldozer	6	30	12	200	432,000
2) 5 Tractors & Equipment	7	30	10	250	525,000
Total					957,000

Table No. 8: Machinery Operation - Costs (Est.)
IL./1977 Prices

	Bulldozer	5 Tractors and Equipment
1) Driver Wages	36,000	120,000
2) Gas and Oil	128,000	110,000
3) Maintenance	50,000	100,000
4) Depreciation (10%)	60,000	11,000
5) Miscellaneous	11,000	21,000
Sub-Total	285,000	362,000
Grand Total		647,000

Table No. 9: Annual Administration Costs (Est.)
IL./1977 Prices

1) Manager	30,000
2) Accountant	25,000
3) Watchman	20,000
4) Other	25,000
	100,000

Table No. 10: Benefit/Cost Parameter in IL./1977 Prices

	Total Annual Costs	Total Annual Income	Net Annual Income
1) Machinery	576,000	957,000	242,000
2) Administration	100,000	- (less)	- 100,000
3) Depreciation (10%)	71,000	-	-
Total	747,000	957,000	142,000

This table indicates a Benefit/Cost ration of (1.30). A ratio of (1.00) of a marginal project would be acceptable only if social benefits were to justify the project, since such projects are cooperative projects and their profits are supposed to be marginal. The (1.30) rate allows for capital accumulation for equipment replacement and functional expansion of the Cooperative.

V. Project Evaluation

The project/grant may be evaluated against the following considerations.

1) Estimated tangible benefits may be:

   (a) Yearly incremental increase in the cultivated land in the region of 800 dunums, i.e., by an approximate annual rate of 1.33%.

   (b) An increase in personal income in the area of circa $10 per year, i.e., approximately 5% of year.

2) Estimated intangible social benefits may be:

   (a) An increase in agricultural mechanization.

   (b) A step towards agricultural modernization.

   (c) Opening new employment possibilities for the increasing population.

3) The projected financial picture for the project, i.e. financial analysis, is as follows:

Table No. 6: Income and Expenses (Est.)

		Income*	Expenses*	Net Income*
A. Machinery				
1) Bulldozer	$$60,000	432,000IL	270,000IL	162,000IL
2) 5 Tractors & Equipment	$113,000	527,000IL	460,000IL	80,000IL
B. Administration	-	-	100,000IL	(-)100,000IL
C. Land, Building, Stores	$ 47,000	-	-	-
Total	$220,000	957,000IL	830,000IL	142,000IL

*Price in IL/1977 Prices

VI. Project Funding

Table No. 11: Total Costs in US $/1977 Prices

I. Finance Plan/One Year Only

A. Machinery

1) Bulldozer	$60,000
2) 2 Field Crop Tractors	$22,000
3) 3 Orchard Tractors	$42,000
4) Equipment for Field Tractors (10 Items)	$24,000
5) Equipment for Orchard Tractors (8 Items)	$25,000
Sub-Total	$173,000
B. Land Building and Stores	$47,000

Total Capital Costs	$220,000	
C. Machinery Operation - One Year	(77 prices)	647,000IL
D. Administration - One Year	(77 prices)	100,000IL
Total Operational Costs - One Year	747,000IL	

II. Due to inflation, costs have risen since 1977. The bulldozer alone now costs $100,000 which brings the capital costs to $260,000.

III. Project Finance - Capital Costs

1) Halhul Agricultural Cooperative	$110,000
2) ANERA/AID Grant	$150,000
Total	$260,000

ANERA grant request from AID: $150,000

Title: DURA AGRICULTURAL COOPERATIVE -- LAND RECLAMATION AND MACHINERY UNIT

I. Introduction

At one level, the purpose of this grant/project would be to aid the Dura Cooperative in its efforts to provide land reclamation services for its members and the villagers of the area it serves. At another level, the purpose is to enhance the incomes of two groups by improving the productivity of part of their land currently under cultivation and bringing more land into production via reclamation. Another intended effect is to encourage some farmers who would otherwise leave, to remain on their farms by providing more and improved land for them to cultivate. Added food production for local consumption and export would also be an effect.

This project is directly comparable to last year's project in Tarqumiya and this year's proposed project in Halhul. Grouped together, these three projects should provide basic mechanized services for all the farmers of Hebron District. Similar projects are being or will be proposed for the Ramallah and Nablus Districts.

The beneficiary target groups are two. First, 100 members (expected to increase to 400 in two years) of the Dura Cooperative from the area which it serves, would be one target group. They would receive the services as well as enjoy the benefits of a stregthened cooperative. Second, around 3500 non-Co-op member farmers in the area would be able to employ the services of the

Cooperative. It is projected that circa 60,000 dunums (10 dunums = 1 hectare) could be reclaimed over 20 years in the area. The Co-op plans to provide services to reclaim 1000 of these dunums per year.

The Cooperative's contribution towards the project would constitute 68% of the total cost; ANERA would contribute 32%.

Dura is a small town (or large village) located in the Hebron district twelve kilometers to the Southwest of Hebron City. The Co-op would serve this rural town and the surrounding villages.

ANERA's official relationship to the project would last one year. The cooperative then would continue on its own indefinately. It intends to set aside funds regularly so as to be able to replace equipment as needed.

II. Project Design

Statement of Problem(s)

The problem involves low- or non-productivity of two categories of land which results in the deprivation of income for the farmers who cultivate this land. The two categories of land are (1) that which is currently tilled, but is of low productivity due to improper slopes, rockiness, and erosion and which also requires crop substitution and (2) that which is currently uncultivable due to rocks and slopes.

The inability of the farmers to improve the productivity of their land without mechnized land reclamation efforts results in a very low per capita income. Table No. 1 in the Halhul Agri-

cultural Co-operative subgrant proposal would also be valid for the Dura region.

For the Dura region, the picture is as follows:

Table No. 1: Agricultural Production and Income in Dura Region
1978 figures

	Production	Cultivated Area (Dunums)	Annual Average Income per Dunum
1)	Vegetables	5,000	IL. 4500
2)	Dry-land-Crops	30,000	IL. 3500
3)	Fruit trees	6,000	IL. 3000
4)	Olives	9,000	IL. 3000
	Total/Average	50,000	IL. 3500(1)

(1)Area weighted

Table No. 1 shows an average annual per dunum income of IL. 3500. Since the cultivated area is currently 50,000 dunums and the population is 30,000, average per capita income is IL. 5950 from agricultural which in turn equals $248.

This low income level, aside from the pure humanitarian concern it involves for the needy, results in the emigration of manpower from the region and deprives the region of surplus capital for self-generated development. The non- or low-productivity of potentially more productive land also hinders the farmer in his/her ability to meet the needs of the local and export markets.

Another problem in the Dura region is the relative dearth of agricultural machinery. It is the only region of Hebron

District not being serviced by a land reclamation bulldozer. With respect to other machinery items, the comparative picture is as follows:

Table No. 2: Agricultural Machinery in Hebron Area

Region	No. of Machinery Units	No. of Owners[1]
Halhul	387	118
Tarqumiya	196	61
Dura	77	15

(1) Please note that some owners are farmers. Others are entrepreneurs who hire out tractor services.

Final Goals

The Dura Cooperative intends to have three separate sections/functions:

1. Agriculture machinery unit for land reclamation.
2. District supply center stocking fertilizers, sprays, small machinery, (pruning equipment, small sprayers, etc.)
3. Wholesale marketing assistance.

ANERA via this proposed project/grant would be involved solely in the machinery unit. The Cooperative's machinery unit is designed to achieve two goals:

1). to allow the members of the Cooperative and non-member farmers to reclaim marginal currently unproductive land and,

2) to serve as a regional machinery unit for all the farmers in the region.

Given the size (see below) of the proposed unit, it is expected that farmers will be able to reclaim 1000 dunums per year using its machinery. The average annual need for land reclamation in the Dura region is estimated at 3000 dunums per year. Currently, no land reclamation services are available in the region. Consequently, the demands for the services of the unit will be substantial, since there would be an excess demand of 2000 dunums to be reclaimed yearly.

The non-land reclamation equipment would service 2000 dunums in addition to the 1000 dunums of reclaimed land yearly, for a total of 3000 dunums.

The entire machinery unit would appear as follows:

1. One large bulldozer
2. One small bulldozer
3. Seven tractors
4. 35 equipment items.

The entire unit will affect around 3000 dunums per year. In theory, this should generate $10 in additional revenue per dunum bringing the agricultural income per dunum to $258 after the first year. In addition, each year as added land is reclaimed, additional increments of income would be added as described in the Halhul Agricultural Co-op proposal.

In sum, with the aforementioned unit, the Co-op will be able to provide land reclamation and agricultural machinery services to its members and non-member patrons. This is a service the

Co-op will provide indefinitely, setting aside funds for equipment replacement as needed. Consequently, year by year additional land will be reclaimed and improved which, in turn, will lead to improved income year by year for the 400 Co-op members and 3500 non-member farmers. In addition, incrementally one will observe the improvement of agricultural production in the area served by the Co-op.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff hired, and the agricultural machine unit made an operating division of the Cooperative. The Co-op will then operate the unit indefinately.

III. Project Overview and Strategy

The Dura Agricultural Cooperative was founded in the 1950's and is still registered in Jordan. Since 1967 the Cooperative was dormant due to prevailing conditions in the West Bank. Since mid-1978, Cooperative members together with the Cooperative Department in Hebron and the Mayor of Dura took the initiative to renew the Cooperative and to initiate a machinery unit project to cover the needs for land reclamation and agricultural equipment in the Dura Region.

In the mid 1960's, a plan to strengthen agricultural cooperatives was devised. The basic thrust of the plan was to liquidate small, weak cooperatives and gather the membership in potentially

stronger regional cooperative. The latter were to be established in Tarqumiya, Dura, Samua, Halhul and Hebron.

The land reclamation projects in Tarqumiya, Dura and Halhul in which ANERA is currently involved, are part of the implementation of this plan. These three complementary projects are proposed to cover the Hebron area with agricultural machinery services. These projects are expected to build an extra basis for the proposed Hebron-Bethlehem Regional Cooperative Plant Nursery and for the Hebron Agricultural Canning/Bottling project in which ANERA is currently involved and intends to propose next year.

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. On a specific level, one might predict that the Co-op's agricultural machine unit might put individual entrepreneurs out of business. This is not the case according to numerous observers of the area as well as the land reclamation requirements/demands noted above. There exists sufficient work for all; currently no enterpreneurs are operating in this field of activity in the Dura region.

The impact of the project on women is essentially neutral.

They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process that has already commenced. This is the mechanization/modernization of agriculture. The farmers definitely appreciate the value of appropriate agricultural machinery, and realize this will have an impact on their lives, a positive one in their minds.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, i.e., the continued operation of the mechanized agricultural unit, is assured in three ways. First, the Co-op will be covering all administrative costs. Second, the Co-op will be paid for the services rendered. Third, the Co-op will set asice an adequate portion of its income from the unit for necessary replacement of equipment. Technically, the equipment is not difficult to operate and repair. Sufficient skilled operators exist in the West Bank. Major repair facilities are being developed under another ANERA/AID grant (FY 77, $50,000) at the Al-Bir Society, Jericho. Minor repairs can be executed in Dura and nearby Hebron.

For a financial analysis, see below.

Project Potential

From a technical viewpoint, this project could be replicated by any medium- to large-sized cooperative. From a demand stand-

point, observers (including ANERA) note that a high proportion of the farmers wish to improve and reclaim the land. Those entrepreneurs with equipment work continually in the Hebron region: the demand is high. The major constraint to replication is the availability of capital. If this constraint could be surmounted, the project could be replicated.

Project Constraints

None are foreseen at this time.

Project Summary -- Five AID General Criteria for MESRF Grants

(1) Development -- Yes.
(2) Training -- No.
(3) Poorer elements -- Yes.
(4) Self-sufficiency -- Yes.
(5) Self-help/complement local efforts -- Yes.

IV. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project and the renewal of the dormant cooperative. Technically the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Cooperative Management will do; ANERA staff will oversee this to

insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all materials. The second phase is hiring a staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the operation of the unit which will continue indefinitely. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designed to help the Dura Cooperative establish an agricultural equipment and services unit. All the machinery to be purchased is relatively commonplace. Many West Bankers are familiar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below please find a list of the machinery and equipment to be procured under this project.

Table No. 3: Machinery and Equipment	Costs
1) 1 Bulldozer (D 9 1)	US $ 100,000
2) 1 Bulldozer (small) (955 H)	90,000
3) 3 Crop-field tractors (each $16,000)	48,000
4) 3 Orchard tractors ($19,000)	57,000
5) 1 Shovel tractor	20,000
6) Equipment (35 items)	30,000
Total Costs	$ 345,000

The project also includes the purchase of land and construction of a building at $30,000.

The material will be purchased in the West Bank and Israel.

Delivery will occur from one month to around nine months after the project grant is finalized. The cooperative will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Cooperative will provide its own personnel for the unit as follows:

		Monthly Salary
1)	1 Manager (Agronomist)	IL. 5000
2)	1 Accountant	5000
3)	1 Watchman	3000
4)	9 Tractor Drivers(I.L. 4000 each)	36,000

V. Project Evaluation

The project/grant may be evaluated against the following considerations.

1) Estimated tangible benefits may be:

   (a) Yearly incremental increase in the cultivated land in the region of 1000 dunums, ie, by an approsimate annual rate of 2%.

   (b) An increase in personal income in the area of circa $10 per year, ie, approsimately 4% per year.

2) Estimated intangible social benefits may be:

   (a) An increase in agricultural mechanization.

   (b) A step towards agricultural modernization.

   (c) Opening new employment possibilities for the increasing population.

3) The projected financial picture for the project, ie, financial analysis, is as follows:

Table No. 4

a) Capital Costs	US $
1. Land, Building	30,000
2. Machinery and Equipment	345,000
Total	375,000

Table No. 5

b) Operation Costs	US $
1. Fuel and oil	25,000
2. Administration	24,500
3. Depreciation 10%	34,500
+ 10%	8,400
Total	92,400

Table No. 6

4) Project Income

	Operation Period			Income	Annual
	Months	Days	Hours	Per Hour	Income
2 Bulldozers	6	30	12	IL 600(1)	$ 54,000
7 Tractors & Equipment	7	30	10	IL 1000	87,000
Total					$141,500

(1) 1979 Prices

Table No. 7

5) Benefits - Costs - Analysis	US $
Total income	141,500
Total costs	92,400
Benefits/Costs/Ratio	1.531

The above benefit cost ratio (1.50) indicates the productivity and feasibility of the project.

VI. Project Finance

The Dura Cooperative	$ 317,400
ANERA grant	150,000
Total	467,400

ANERA grant request from AID: $150,000

Title: TARQUMIYA OLIVE COOPERATIVE - PILOT AGRICULTURAL REVOLVING LOAN FUND

I. Introduction

Last year ANERA made a $120,000 subgrant to the Tarqumiya Olive Co-operative which partially funded the purchase of land reclamation and agricultural equipment. Building upon this effort, this year's proposed project is to provide funds for the Co-op's revolving loan fund.

The write up for last year, with a couple of additions, is still valid and is attached to this document as part of the proposal. Many of the essential points and discussion will not be repeated in this part of the document.

The Co-op's revolving loan fund would provide via low interest loan's up to 40% of a Co-op member's costs for reclaiming land or use of other equipment provided by the Co-op's Mechanized Unit.

The beneficiaries of the project would be the now 800 members of the Co-op, up 150 from last year (see attached proposal).

ANERA would provide 100% of the capitalization of the loan fund. However, any given loan would cover only 40% of the farmer's cost for a specific operation. The individual farmer would cover the balance of the costs, 60%.

II. Project Design

Statement of Problem(s)

The problem of low income from the land is described in the attached section and in the Halhul and Dura Agricultural Co-op subgrant proposals.

More specifically, very little agricultural credit exists in the West Bank. That which does exist, is quite limited. (1) Limited and small Jordan Government loans to Co-ops, not individuals, are occasionally made. (2) Foreign and indigenous private voluntary organizations have revolving loan funds--with, incidentally, excellent pay back records. These, however, are again of severely limited scope and range.

The problem of lack of agricultural credit for individuals has in turn negatively affected agricultural development (and per capita income). Most development experts stress the need for rural agricultural credit as the basis for generating development in rural areas. In the West Bank, without this credit, the farmer is forced to rely solely on his own personal income which allows for only a narrow margin of excess over consumption.

This constraint in this context is manifested in two ways. One the one hand, land reclamation for the purpose of planting trees, will generate income for the farmer only after 6 to 8 years. This long period of waiting is especially negative to farmers with no margin or a narrow margin of excess over consumption. On the other hand, the introduction of the use of machinery for agricultural purposes requires added capital inputs from the farmer. If the farmer does not have surplus capital or access to capital, the result is non-use of the machinery and little development.

Final Goals

Final goals may be defined in two ways. First, the aim of the Co-op's mechanized unit is to provide services sufficient to reclaim 1000 dunums per year (1 acre = 4 dunums). The operations required are:

1) Bulldozer Works

   a-Cleaning the land of rocks and stones
   b-Levelling and adjusting soil

2) Contouring if needed

3) Fence building with excess stones

4) Tractor works

   a-Deep-ploughing
   b-Surface ploughing
   c-Ploughing between trees rows

5) Spraying

6) Digging rain-water cisterns

Second is the establishment of a revolving loan fund. The fund would be managed by a committee made-up of one member from each village served by the Co-op. Loans would cover 40% of the farmer's cost of using the mechanized unit and reclaiming land. Maximum loan would be about $500. Interest rates would be in the 1-3% range as established by the Committee. The loans would be for a period of 6 months to 3 or 4 years, depending on the purpose of the activity ie. vegetable production versus tree planting. In order to insure that the loan is used for its intended purpose, one third would be paid initially. After on cite inspection of the loan financed activity, the balance of the loan would be paid.

The Regional Cooperative Department in Hebron would retain supervisory responsibility for the overall operation of the revolving loan fund. No loan would be given without Departmental approval.

Project Activity Targets

Upon receipt of the funds, the Co-op would initiate the operation of the pilot revolving loan fund.

III. Project Over View

Project Development

Please see the earlier proposal, attached. Equally, it is broadly recognized that there is great need for institutionalized regular credit in the West Bank and Gaza. The credit is needed for institutional development as well as individual development efforts. This proposal addresses the latter in rural areas.

More specifically, the Co-op's members are well aware that agricultural credit is provided through Co-operatives in East Jordan and Israel. Consequently, after it embarked on last year's project, it decided to approach ANERA for the funding of the pilot revolving loan fund project. Equally, the Co-op approached the Hebron District Co-operative Department which strongly backed the project.

Project Impact

Please see the earlier proposal, attached.

Project Continuity

The Co-op and the Hebron Co-operative Department will be responsible for maintaining the loan fund. Although no promises have been given and this is well understood, a second grant for this purpose may be considered.

Project Potential

The demand for such projects is very high. The pay-back rates for such small individual loans is known to be high in the West Bank. Replication, however, would be dependent on the availability of capital.

Project Constraints

None are foreseen at this time.

Project Summary

(1) Development - Yes

(2) Training - No

(3) Poorer elements - Yes

(4) self-sufficiency - Yes

(5) Self-help/complement local efforts - Yes, the farmer provides 60% of the funding for a loan activity.

IV. Project Implementation

Pre-Implementation Conditions

The Hebron District Co-operative Department has already approved the project. All that remains is the Military Government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

Upon receipt of the funds, the pilot revolving loan fund will commence.

Technical Considerations

The model used in East Jordan will be followed by the Co-op and overseen by the Hebron Co-operative Department, as noted above.

Procurement Requirements

None

Personnel Requirements

The aforementioned Committee will manage the fund with the aid of the staff and Hebron Co-op Department.

V. Project Evaluation

The project may be evaluated vis-a-vis the following:

A. Economic Benefits

(1) Increasing the propensity of farmers to reclaim land
(2) Increasing the total cultivated area
(3) Improving the standard of living by easing the burden of land reclamation costs.

B. It is expected that the co-operative will set an upper limit of a loan to be circa $500. The costs for reclaiming one dunum are around $250. The co-op anticipates aiding a farmer in reclaiming a maximum of 5 dunums at any one time. Costs of reclaiming 5 dunums, then , would be $1250. A 40% loan for this purpose would be $500.

The Co-op mechanized unit intends to aid in the reclamation of 1000 dunums per year. The total agregate costs for reclaiming the land would be $250,000. The fund would be prepared to handle 40% of that Cost.

Because it is a revolving fund, the fund would be replinished periodically by repaid loans.

VI. Project Funding

- 200 loans @ $500	$100,000

Project Finance

ANERA/AID Grant	$100,000

ANERA Grant request from AID: $100,000

Title: TARQUMIYA OLIVE CO-OPERATIVE -- LAND RECLAMATION

1. Introduction

At one level, the purpose of this grant/project would be to aid the Tarqumiya Co-operative in its efforts to provide land reclamation services for its members and the villagers of the area it serves. At another level, the purpose is to enhance the incomes of these two groups through the improvement of land and bringing more land under cultivation. Another intended effect is to encourage farmers to return to their farms by improving marginal land and reclaiming land which would be cultivable with significant improvement.

The beneficiary target groups are two. First, 650 members of the Tarqumiya Co-operative in the fifteen village area which it serves, would be the primary recipients. They would receive the services as well as enjoy the benefits of a strengthened co-operative. Second, 3000 non-Co-op member farmers in the 15 villages would be able to employ the services of the Co-operative, as they already do in the olive oil processing operations of the organization.

The Co-operative's contribution towards the project would constitute 41% of the total cost; ANERA would contribute 59%.

Tarqumiya village is located in the Hebron District, 12 kilometers to the west of Hebron City. The village lies in a central position among the 15 villages it serves. It should also be noted that the area is one of the poorest in the entire West Bank.

ANERA's official relationship to the project would last one year. The Co-operative then would continue on its own indefinitely.

It intends to set aside funds regularly so as to be able to replace equipment as needed.

2. Project Design

Statement of Problem(s)

The problem involves low- or non-productivity of three categories of land which results in the deprivation of income for the farmers who cultivate this land and often feel compelled to seek employment elsewhere. The three categories of land are: (a) land which is being currently tilled, but is of low productivity due to: improper slopes, erosion and attendant factors; (2) land which was cultivated, but abandoned due to the aforementioned factors making it non-profitable to till the land; (3) land which has not been cultivated, but could be brought under production if properly prepared.

In terms of figures, the area the Co-operative covers is about 113,000 acres. Total land under some form of production, however marginal, is 61,000 acres. Land falling into categories #1 and #2 (categories which in terms of figures are not made distinguishable by the Co-operative because members do not want to state total non-productivity of previously marginally productive land) totals 27,000 acres. Unreclaimed land, not under any form of production now or recently, which may be reclaimed, totals 16,250.

These problems, especially #1 and #2, have lowered the income of the individual farmers and their families, forced some farmers and their children to seek employment elsewhere (more than would do so if the land could be improved), and lowered the productivity of

the Tarqumiya region and the West Bank. These are the judgments of the managers of the Tarqumiya Co-operative, the Co-operative Department of the Hebron District, the Agricultural Research and Extension Department of the Hebron District, Mennonite Central Committee staff officials, and ANERA.

Final Goals

Two phases may be easily defined for this project. The first is when ANERA is officially involved in the project. The second is the long term, that is the indefinite period when there will be improved operations and services of the Co-operative in the service of its members and non-member patrons.

The first phase, which will take less than a year once the funds are available, is the purchase of equipment and the construction of a building. ANERA will participate only in the purchase of a portion of the equipment. The equipment consists of agricultural machines and implements for land reclamation and improvement. Through the provision of this equipment, the Co-operative, after hiring a small staff to operate them, will possess an agricultural machine unit.

The second phase is the substantive one. With the aforementioned unit, the Co-op will be able to provide land reclamation and improvement services to its members and non-member patrons. This is a service the Co-op will provide indefinitely, setting aside funds for equipment replacement as needed. Consequently, year by year additional land will be reclaimed and improved which, in turn, will lead to improved income year by year for the 650 Co-op members and 3000

non-member farmers. In addition, incrementally one will observe the improvement of agricultural production in the area served by the Co-op and the West Bank as a whole.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff hired, and the agricultural machine unit made an operating division of the Co-operative. The Co-operative will then operate the unit indefinitely.

3. Project Overview

The Tarqumiya Olive Co-operative was officially founded in 1975. Its current program is the pressing of olives and the extraction of oil for its 650 members and the 3000 non-member patrons of a 15 village area with a population of 54,000.

This project was conceived by the managers of the Co-operative. It was developed on a technical basis in consultation with the Hebron District Co-operative Department and Agricultural Research and Extension Department, the Mennonite Central Committee, and ANERA. The Co-operative's operations and development have benefitted from loans from the Jordan Co-operative Organization and the Lutheran World Federation. As noted above, two sections of the government have a role and interest in the project, and have recommended it.

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very general

level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. On a specific level, one might predict that the Co-op's agricultural machine unit might put individual entrepreneurs out of business. This is not the case according to numerous observers of the area. There exists sufficient work for all; currently very few entrepreneurs are operating in this field of activity.

The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process that has already commenced. This is the mechanization/modernization of agriculture. The farmer definitely appreciate the value of mechanized and appropriate agricultural machinery, and realize this will have an impact on their lives, a positive one in their minds.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, i.e., the continued operation of the mechanized agricultural unit, is assured in three ways. First, the Co-op will be covering all administrative costs. Second, the Co-op will be paid for the services rendered. Third, the Co-op will set aside an adequate portion of its income from the unit for necessary replacement of equipment. Technically, the equipment is not difficult

to operate and repair. Sufficient skilled operators exist in the West Bank. Major repair facilities are being developed under another ANERA/AID grant (FY 77, $50,000) at the Al-Bir Society, Jericho. Minor repairs can be executed in Tarqumiya and nearby Hebron.

Project Potential

From a technical viewpoint, this project could be replicated by any medium- to large-sized co-operative. From a demand standpoint, observers (including ANERA) note that a high proportion of the farmers wish to improve and reclaim land. Those entrepreneurs with equipment work continually in the region: the demand is high. However, as with many other institutions in the occupied West Bank and Gaza, investment capital is currently lacking due to the uncertain political conditions. Thus, the replication potential under current conditions is problematic.

Project Constraints

None are foreseen at this time.

Project Summary -- Five AID General Criteria for MESRF Grants

(1) Development -- Yes. For details, see above.

(2) Training -- No.

(3) Poorer elements -- Yes. See above.

(4) Self-sufficiency -- Yes. For details, see above.

(5) Self-help/complement local efforts -- Yes. For details, see above and the budget. below.

4. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project. Technically the project has already been recommended by the Co-operative Department and the Agricultural Research and Extension Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Co-operative management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is hiring a staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the operation of the unit which will continue indefinitely. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designedto help the Tarqumiya Co-operative establish an agricultural equipment and services unit. All the machinery to be purchased is relatively commonplace. Many West Bankers are familiar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below, please find a list of the machinery and equipment to be procured under this project.

A	Three Field Crop Tractors @ $11,000	$33,000
B	Two Orchard Tractors @ $13,000	$26,000
C	One Medium Size Combine @ $15,000	$15,000
D	Equipment for Field Tractors (13 items)	$36,000
E	Equipment for Orchard Tractors (5 items)	$14,000
F	One Bulldozer @ $45,000	$45,000

(ANERA will not be involved in the purchase of the bulldozer.) The project also includes the construction of a building and purchase of stores @ $35,000.

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The Co-operative will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Co-operative will provide its own personnel for the unit as follows:

1 Manager
1 Accountant
5 Tractor Drivers
1 Combine Driver
2 Bulldozer Drivers

5. Project Evaluation

Final Goals

On one level in the very short term, the project may be evaluated by ascertaining if the unit is established with the proper equipment and personnel.

On a more important level, an evaluation should be made after one full season (and again after three or four seasons). Ideally, one would like to examine the increase/decrease in farmer income. No base line data exists against which to measure this. An acceptable but lesser alternative would be to examine the books of the unit to establish the extent of use of all the machinery and equipment in the unit and the amount of land reclaimed or improved. Spot interviews of members of the Co-operative would also be useful in evaluating the ability of the Co-op to render the unit's services as well as the equity in their distribution.

6. Project Funding

Financial Plan/One Year Only

The costs for starting up this project appear as follows:

	Item	Cost
A.	Three Field Crop Tractors @ $11,000	$33,000
B.	Two Orchard Tractors @ $13,000	$26,000
C.	One Medium Size Combine @ $15,000	$15,000
D.	Equipment for Field Tarctors (13 items)	$36,000
E.	Equipment for Orchard Tractors (5 items)	$14,000
	Subtotal*	$124,000

*Note: The ANERA/AID portion of the grant would only cover $120,000 of the $124,000 for items A through E.

F.	One Bulldozer	$45,000	
G.	Stores and a Building	$35,000	
	Subtotal	$80,000	
	Total		$204,000

Project Finance

1.	The Tarqumiya Co-operative	$84,000
2.	ANERA/AID Grant	$120,000
	Total	$204,000

ANERA grant request from AID: $120,000. FY 79

Grant request from AID FY79: $100,000

Title: HEBRON/BETHLEHEM REGIONAL PLANT NURSERY COOPERATIVE

1. Introduction

The purpose of this proposed project/grant would be to develop the Cooperative's capability to supply the southern half of the West Bank (Hebron/Bethlehem region) with seedlings, primarily olive and stone-fruit trees. Due to demand and the nature of the land, olive seedlings would be the Cooperative's primary focus. In order of emphasis, the production would be as follows:

1) Olive seedlings
2) Forestry seedlings
3) Stonefruit seedlings
4) Vine (Grape) seedlings
5) Apple seedlings
6) Ornamental Plant seedlings
7) Vegetable seedlings
8) Citrus seedlings

In order to help the Cooperative realize this production, the project/grant would aid it to establish a full plant nursery.

The need for such a project may be seen at different levels. First, currently the farmers of the region depend on the production of one West Bank (Abdul Hadi's) nursery which is charging marginally high prices (see below). If realized, the project would help farmers lower costs and potentially widen their profit margin. Second, this project should be considered as an integral

part of current and previous ANERA/AID land reclamation projects in Tarqumiya, Dura and Halhul. The Cooperative would supply seedlings for newly reclaimed land and crop-substitution programs. Third, all the points made with respect to low productivity and the need to improve income made in the write-ups for the aforementioned projects hold for this project and will not be repeated here.

The beneficiaries of the project would be most of the farmers of the Hebron/Bethlehem region (circa 20,000 families). The Cooperative members, expected to number 700 in three years, will benefit slightly more than other farmers due to their being able to purchase seedlings at slightly reduced prices. However, because the nursery is based on cooperative rather than profit principles, the price of the seedlings for non-members will be quite low. Consequently, all the farmers purchasing seedlings will benefit from the marginally low prices.

The nursery will be located at Bir al-Qos near Beit Awla, ten miles west of Hebron.

ANERA's official relationship to the project would last around one year. The Cooperative would then continue on its own indefinitely. It intends to set aside funds regularly so as to be able to replace capital equipment as needed.

The Cooperative's contribution towards the project would constitute 40% of the total cost; ANERA would contribute 60%.

2. Project Design

Statement of Problem(s)

As noted above, the problems with respect to low income and low land productivity have been dealt with elsewhere and will not be repeated here.

The problems addressed here are increasing demand for seedlings and the extant limited, costly supply.

The level of demand for seedlings over the last four years has increased dramatically. The implementation of the Tarqumiya, Dura and Halhul land reclamation projects will further fuel this demand. Studied judgment by experts project the following:

Table No. 1: Projected demand for olive seedlings in Hebron/ Bethlehem Area in the next 20 years (1)

Current annual demand	100,000
Green Belt Area(2) - Hebron District	2,500,000
Other Valleys - Hebron District	1,500,000
Bethlehem District	1,000,000
Total Requirements	5,000,000
Projected Annual Demand	300,000

(1) See below for added information with respect to this table.
(2) The Green Belt lies to the west of Hebron town.

The current supply for seedlings in the Hebron District is being provided from the following sources:

Table No. 2: Current Annual Demand for Seedlings in Hebron District

Kind	Source			Total
Olive seedlings				100,000
	Abdul-Hadi	80%	80,000	
	Other West Bank	20%	20,000	
Stone fruit	Israel			10,000
Apples	Private			300
Forestry	Israel			20,000
Total				130,300

The prices charged for these seedlings, however, is marginally quite high. The 1977 price for an olive seedling was IL 18-20. The marginal costs of production did not exceed a margin of IL 4-5. Consequently, the farmer is paying the seedling margin plus circa twice the marginal cost. The cost/profit estimate is as follows:

Table No. 3: Cost/Profit Estimates of Olive Seedlings

		(1)	(2)
	Average market price	IL 19.00	30
less	Average marginal costs	IL 4,50	6
	Average marginal profit	IL 14.50	19.50
less	Considered merchant profit of 50%	IL 9.50	15
	Difference	IL 9.50	15

(1) 1977 Prices (2) 1978 Prices

The IL 15 margin for each olive seedling is a heavy burden on the farmer's budget. It has raised his costs and considerably cut his disposable income.

On the supply side, the origin of the problem is as follows:

1) From 1936 to 1970, seedlings were produced at Government agriculture stations. Al-Arroub station produced a wide variety of stone-fruit and other non-olive seedlings. Qabatia station concentrated on olive seedlings. Both Government stations charged symbolic prices. In 1970, the seedling production was stopped at both stations. No substitution for their production was provided by the Government.

2) The current major seedling source is a private nursery in Wadi al-Fari'a which has a virtual monopoly on the market. The problems with the supply from this nursery are:

   (a) Marginally high prices, see above.

   (b) Non-production of required seedlings, e.g., apples and almonds.

   (c) The nursery is shifting its emphasis from olive to citrus seedlings. (Production of citrus seedlings is more appropriate for the nursery, due to its location. Production of olive seedlings is somewhat inappropriate for the same reason.)

3) The limited seedling supply from Israel has been inappropriate because the seedlings are intended for different soils and elevations appropriate for conditions in Israel.

4) Apple seedlings for the West Bank are unavailable from Israeli suppliers (due to high demand in Israel) and the privately

owned West Bank supplier (due to non-production).

Another problem to be addressed by this project is desert encroachment. Desert encroachment in the Green Belt area has been a problem for some time. The officials of the Department of Agriculture, consequently, have been encouraging farmers to plant olive trees in the region. The officials and their experts judge that the planting of the trees will retard or stop desert encroachment and potentially help produce more rainfall. Thus, as may be seen in Table 4 below, the greatest emphasis on planting olive trees is in the Green Belt area.

As noted in the introduction, the target group of this project is all the farmers of the Hebron/Bethlehem region.

Final Goals

The final goal of the project is to cover the requirement of the Hebron/Bethlehem farmers for the following:

1) Olive seedlings which represent the highest priority for tree planting of the farmers, and the Departments of Labor and Agriculture.

2) Other seedlings in order of priority:

   a) Stone fruit trees

   b) Grape vines

   c) Apple trees

   d) Ornamental plants

   e) Citrus trees

The total projected annual demand for the various types of seedlings is circa 300,000. These would be distributed in an area of around 15,000 dunums per year in the Hebron/Bethlehem area.

In a 20 year period, the total projected demand will amount to 5,000,000 seedlings over an area of circa 300,000 dunums.

Table 4: Development Estimates for Tree Cultivation for 20 Years in the Hebron/Bethelehem Area

Area		Dunums
I. Hebron		
A. Total Green Belt(1)	195,000	
Less already cultivated	(22,000)	173,000
B. Other to be cultivated		27,000
Subtotal Hebron		200,000
II. Bethlehem		
Subtotal - to be cultivated		100,000
Total		300,000
Annual Development		15,000

(1) Area of desert encroachment, see above.

The sources of demand for the various kinds of seedlings to cover the projected 15,000 dunums per year may be broken down in the following manner:

1) Land Reclamation

The farmers' efforts at land reclamation constitute a major source of demand for seedlings. Current annual land reclamation designed for trees is running at circa 1000 dunums per year. The

three previously noted cooperative based land reclamation projects in Tarqumiya, Dura and Halhul will cover an additional 2000 dunums designed for trees per year. Total land reclamation efforts designed for trees would provide 3000 dunums per year.

2) Agricultural Substitution

Farmers substitute one tree stand for another. The general trend is to olives as recommended by the Department of Agriculture. For much of the region, olives are the most appropriate due to climate and soil conditions. This source of demand constitutes circa 5000 dunums per year.

3) Rejuvenation

Farmers cut down old trees and replant. This practice is mostly in the stone fruit category. This source of demand constitutes circa 2700 dunums per year.

4) Accomplishment

When farmers plant seedlings, some die. Replacing dead trees or accomplishment constitutes a yearly demand on circa 1000 dunums.

5) Private Gardens

Statistics are not available on this demand.

6) Enlightenment Program

The Department of Agriculture has an enlightenment program which attempts to persuade farmers to plant appropriate trees for climate and soil, usually olive trees. The major focus of the program is on the Green Belt. Projected total dunumage affected is 3000 per year.

Traditional practice of tree spacing is as indicated in Table 5.

Table 5: Number of Seedlings per Dunum

Traditional Farmer Practice[1]			
Olives	Stone Fruits	Grapes	Apples
20-25	60	100	60

[1] The number of seedlings per dunum is higher than recommended by the Department of Agriculture.

Table 6 below incicates the farmers' theoretical use of the 15,000 dunums designed for tree planting. It should be noted that from the time land is cleared or prepared for potential tree planting to the time trees are actually planted, there is usually some lag. Over a period of 1 to 5 years, depending on the farmer and his resources, this lag time is usually made up.

Table No. 6: Annual Average Demand for Seedlings in Hebron/Bethlehem Area

	Area/Dunum			Seedlings		
Way of Cultivation	Total	Olive	Other[1]	Total	Olive	Other
1) Land Reclamation	3,000	1,500	1,500	55,000	30,000	25,000
2) Substitution	5,000	3,000	2,000	100,000	70,000	30,000
3) Rejuvenation	3,000	-	3,000	50,000	-	50,000
4) Accomplishment	1,000	500	500	20,000	10,000	10,000
5) Private Gardens	?	?	?	10,000	5,000	5,000
6) Enlightenment	3,000	3,000	-	65,000	65,000	-
Grand Total	15,000	8,000	7,000	300,000	180,000	120,000

[1] As noted above, all land is not immediately used for trees. This column takes this factor into consideration.

Project Activity Targets

During the first year, the project would be implemented and readied for production. It is during this phase when ANERA would be involved, namely in the purchase of equipment and a temperature controlled green house. In the second year, the Cooperative would concentrate on the production of stocks which would establish the basis for the cultivation of seedlings. As appropriate in the second and third years, seedlings would be produced for sale to Co-op members and patrons.

3. Project Overview

Project Development and Strategy

The concept of the project goes back to the year 1970, when the Military Government closed the seedling nurseries of the Al-Arroub and Qabatia agricultural stations. Because the stations had been the major source of supply for seedlings, the supply virtually dried up. Shortly thereafter, however, Mr. Abdul Hadi's nursery was started. The pricing problem with this nursery was discussed above. Consequent to the foregoing, local farmers have initiated this project with the support of the Department of Cooperatives.

As has been noted, the nursery's olive seedling production meshes very closely with the programs of the Department of Agriculture and has the support of the Department of Cooperatives.

With respect to ANERA's projects, the project is directly

complementary to the land reclamation projects with the Cooperatives in Tarqumiya, Dura and Halhul. In addition, both the Mennonite Central Committee and the Community Development Foundation currently distribute subsidized olive seedlings to farmers. This project would be complementary to and aid this effort.

Project Impact

The impact is essentially the same as for the Dura and Halhul land reclamation projects. Please see the relevant sections. Environmentally, the impact should be positive given its partial focus on halting desert encroachment.

Project Continuity:

The cooperative will earn a marginal profit from its sales of seedlings to members and non-member farmers. This profit will be used in financing the requirements of the nursery. Hence, when ANERA's role in the project terminates, the cooperative will be able to maintain the nursery by providing the required funds for staff, maintenance, replacement, transport, and other costs. In the future, ANERA's involvement in the project is not expected.

Project Potential

Given the availability of funds and the demand for seedlings of various varieties, the project is replicable.

Project Constraints

None are foreseen at this time.

Project Summary - Five AID General Criteria for MESRF Grants

1) Development -- Yes.

2) Training -- No

3) Poorer Elements -- Yes

4) Self-sufficiency -- Yes.

5) Self-help/complement local efforts -- Yes.

4. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project. Technically, the project has already been recommended by the Cooperative Department and has the agreement of the Agricultural Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Cooperative management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is adding staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the installation of the nursery and attendant parts and the start of production as described above. Again, ANERA will not be officially involved in

this phase.

Technical Considerations

Technical expertise sufficient to implement the project is available on the West Bank. The temperature controlled greenhouse will be purchased and installed locally. All other technical items are familiar in the area

Procurement Requirements.

Below please find a list of the equipment to be procured under this project.

Equipment	Cost/US$
1) A Green-house/Temperature Controlled	99,000
2) Forming and cutting machine for plastic sacks	3,000
3) Irrigation system	25,000
4) Sterilizer	2,000
5) Hand-work articles	3,000
6) Laboratory equipment	3,000
7) Electric generator	6,000
8) Other	2,000
+ 10%	14,000
Total	157,000

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The Co-op will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Cooperative will provide its own personnel for the unit as follows:

Personnel Requirements	Annual Salary
1) One Agronomist	IL 72,000
2) Two Handworkers	72,000
3) One Machine Worker	36,000
Total	IL 180,000

5. Project Evaluation

(1) Tangible Benefits

a) Increasing per capita income by the difference between market prices and project sale prices. This is estimated at ca 50% of current market prices. An olive seedling costs ca IL 19.50; the marginal price of the cooperative would be ca IL 10.00, which means a difference of IL 9.50 which will be added to the disposable income of the farmer.

b) Providing the area every year with ca 300,000 seedlings of different kinds, i.e., 180,000 olive seedlings and 120,000 seedlings of other varieties. (See Table No. 6)

Table No. 8: Capital Costs (excl. Land)

		US $
1) Machinery	(incl. 10%)	157,000
2) Building	(incl. 10%)	22,000
3) Water Reservoir	(incl. 10%)	33,000
Total		212,00

Table No. 9: Operation Costs of First Year

A. Material Costs	Quantity	Price/US $
1) Peatmoss		1,000
2) Plastic rolls	(1250 kg)	2,000
3) Terra rosa	(1000 m^3)	10,000
4) Sand	(500 m^3)	4,500
5) Hormones	-	2,000
6) Seeds		2,500
7) Fertilizers		2,500
8) Sprays		2,500
+ 10%		2,700
Sub-Total		29,700
B. Administration Costs		10,000
Grand Total		39,700

Table No. 10: Estimation of Marginal Production of the First Year

In IL/US $ 1 = IL 18.50 (Nov. '78 figures)

Operation Costs	Marginal Price	Marginal Production (Olive Seedlings)
734,450	10	74,000

Table 10 means that the nursery should produce 74,000 olive tree seedlings in order to cover its operation costs for materials and administration.

It is however, planned that a minimum production of 120,000 olive seedlings should be achieved in the first year of production. This means a minimal income of IL 1,200,000 which would include

a minimal profit of IL 470,000 in the first year.

Table No. 11: Total Cost Estimates - In US $

1) Capital Costs	212,000
2) Operational Costs	39,700
Total	251,700

Table No. 12: Benefit/Cost Analysis

	IL
Total Estimated Income	1,200,000
Total Estimated Costs	740,000
Benefit/Cost Ratio	(1.63)

This parameter indicates a Benefit/Cost Ratio of (1.63) as is required to indicate the profitability, productivity and feasibility of the project. The profitability will allow for the replacement of capital investments.

The project may be evaluated vis-a-vis the above tables. And it should be added that the production figure of 120,000 olive tree seedlings the first year is the goal of only the first year. Increased production to a rate of 300,000 seedlings per year is the ultimate aim. This figure would be approached as demand grows as per tables 4 and 6.

6. Project Funding

The details of the financial plan may be found above. Capital cost funding would be:

Capital Costs

I. The Cooperative	$101,700
II. ANERA/AID Grant	150,000
Total	$251,000
ANERA grant request from AID:	$150,000.

Title: BETHLEHEM/HEBRON AGRICULTURAL SERVICES CO-OPERATIVES PROJECTS

1. Introduction

This proposal includes six projects, each attached to an agricultural co-operative in the Bethlehem/Hebron area. All are focused on the provision of mechnized services to the co-ops' members and non-member patrons.

The projects will take place in the following villages and their co-operatives:

Table No. 1: The Six Co-operatives

	Name of Cooperative	Location	Registration Year	Distance from Hebron
1)	Raboud Credit and Thrift Cooperative	Raboud	1973	16 Km
2)	Sikka Agricultural Cooperative	Sikka	1975	20 Km
3)	El-Majd Agricultural Cooperative	El-Majd	1976	22 Km
4)	Beit Erosh Agr. Cooperative	Beit Erosh	1979	25 Km
5)	El-Koum - Beit Makdoum Agr. Coop.	El-Koum	1979	25 Km
6)	Wadi Fokin Agr. Cooperative	Wadi Fokin	1976	from Bethlehem 12 Km

The projects' beneficiaries are of two levels. First, one third of the populations of the respective villages are members of the co-ops, totalling 162 member families. Second, the co-ops'

machinery units will be at the service of the balance of the villages' farm families.

As to respective shares in the capital costs, ANERA would bear 49% and the co-operatives, 51%.

ANERA involvement in the project would last approximately one year. Subsequently, the respective co-ops would continue to execute them indefinitely.

2. Project Design

Statement of Problem(s)

A major problem in the area served by these co-ops is low farmer income derived from the land as observed by West Bank agricultural experts. As a consequence of this problem, dramatic demographic shifts are caused. Specifically, around 50% of the labor force--mostly the young--no longer work on the farms and turn to jobs in the East Bank, Israel, and other parts of the West Bank. A contributing cause to the low farm income is the lack of access to needed machinery for cultivation and expansion of the agricultural area.

While these projects and others like them will not halt the world wide trend of farm population leaving the rural areas, it will likely have the effect of slowing the demographic shift to a more normal (in comparison to the world) rate which will have less drastic effects on the economy and society.

Table 2 indicates the low level of income from the land, referred to above:

Table No. 2: Farmers' income from agriculture

	Village	Population	Total Area (Dunums)	Cultivated Area (Dunums)	Annual Agriculture Per capita income in US $
1)	Raboud	500	4,000	1,600	278
2)	Sikka	300	3,000	1,200	347
3)	El-Majd	1,500	3,500	1,400	81
4)	Beit Erosh	400	2,000	800	174
5)	El-Koum & Beit M	400	5,000	2,000	435
6)	Wadi Koukin	400	2,000	800	174
	Totals/Average	3,500	19,500	7,800	194 (1)

(1) a) Population weighted average
b) Average Dunum yields IL 2,000 a year
c) Exchange Rate: US $ 1 = IL 23

Final Goals

The final goal of this proposed project would be to assist the farmers of the six villages (around 500 farm families) to raise the productivity of agriculture through mechnization and, hence, improve income derived from the land.

The benefits of the projects may be outlined as follows:

- improving the means of production
- improving productivity
- decreasing operational costs
- increasing the cultivated area
- slowing the dramatic demographic shift
- raising family income derived from the land.

The area to be affected by these co-op mechnized units is broken down as to crop mix in the following manner:

Table No. 3: Project Area by Agricultural Crops
(in Dunums)

	Village	Fruit Trees	Olives	Vegetables	Wheat & Barley
1)	Raboud	200	200	400	1200
2)	Sikka	250	300	250	800

3)	El-Majd	150	250	400	1200
4)	Beit Erosh	150	250	150	800
5)	El-Koum & Beit Makdoum	500	500	500	1500
6)	Wadi Foukin	300	200	400	200
	Total	1750	1700	2100	4900

Of the villages, only Wadi Foukin has the benefit of irrigation and that on circa 400 dunums. All other cultivation is of the dry-land type.

Project Activity Targets

Within one year of the projects being funded, ANERA's official role in the projects will be terminated. The equipment will have been purchased, staff hired, and the mechnized units made an operating division of the co-ops. The Co-operatives will then operate the units indefinitely.

3. Project Overview

Project Development and Strategy

Each co-op has individually proposed their respective projects. These, in turn, have been recommended to ANERA by the Bethlehem/Hebron Co-op Department. The Co-ops and ANERA have informed the Military Government of their desire to implement these projects.

As to strategy, these projects neatly mesh with the land reclamation and plant nursery proposed projects described elsewhere in this document.

Project Impact

This project is essentially neutral to any group outside of the aforedescribed beneficiary group. With respect to women, the

the project is essentially neutral. As to impact on social and cultural values, the project just underlines a trend already started ie agricultural modernization.

Project Continuity

ANERA will be officially involved in this project for only one year, the implementation period. Subsequently, the co-op will carry out the project. ANERA would provide only part of the capital costs and no operating costs, thus insuring continuity. The feasibility study, below, indicates the economic feasibility of the project.

Project Potential

Given sufficient capital, the project could be replicated.

Project Constraints

None are foreseen at this time.

Project Summary - Five AID General Criterion for MESRF Grants

(1) Development - Yes
(2) Training - No
(3) Poor elements - Yes
(4) Self-sufficiency - Yes
(5) Self-help/complement local efforts - Yes

4. Project Implementation
Pre-Implementation Conditions

The project is recommended by the Co-op Department. All that remains is the Military Government's approval which hopefully will be forthcoming in a short period.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the

co-ops will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is hiring tractor drivers, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the operation of the units which will continue indefinitely. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designed to help the Co-operatives establish agricultural equipment and services units. All the machinery to be purchased is relatively commonplace. Many West Bankers are familiar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

1)	Land and Buildings $10,000 each cooperative 6 cooperatives:	Cost $ 60,000
2)	Field Tractors 1 tractor for each cooperative except Sikka 5 field tractors	Cost $ 60,000
3)	Orchard Tractors 1 tractor for each of Raboud and Sikka cooperatives 2 Orchard Tractors	Cost $ 28,000
4)	Water Tanks 1 water tank for each cooperative 6 water tanks	Cost $ 9,000

5) Sprayers

a) 1 simple spayer for each of El-Majd, Beit Erosh, El-Koum and Wadi Foukin
4 sprayers — Cost $ 4,000

b) 2 unit sprayers for Raboud and Sikka — Cost $ 8,000

6) Ploughs
2 ploughs for each cooperative except Raboud
10 ploughs — Cost $ 5,000

7) Cultivators
1 cultivator for each of El-Majd, Beit Erosh, El-Koum and Wadi Foukin
4 cultivators — Cost $ 24,000

8) Trailers
1 trailer for each of El-Majd, Beit Erosh, El-Koum and Wadi Foukin
4 trailers — Cost $ 6,000

9) Threshers
1 thresher for each of El-Majd, Beit Erosh, El-Koum and Wadi Foukin
4 threshers — Cost $ 4,000

With respect to the above, the Raboud and Sikka co-ops already possess some equipment. The others have none. In both Raboud and Sikka, some of the old machinery needs to be replaced.

Existing and required machinery is as appears in Table No. 4.

Table No. 4: Cooperative Agricultural Machinery

	Cooperative	Existing Machinery	Required Machinery	Replacements
1)	Raboud	Trailer Cultivator Plough Thresher	Field tractor Orchard Tractor Water tank (Unit) sprayer	
2)	Sikka	Field Tractor Cultivator Trailer	Orchard tractor Water Tank (Unit) sprayer	

2)	Sikka (cont.)	Plough	(2) Ploughs	(1) Plough
3)	El-Majd	None	All equipment	None
4)	Beit Erosh	"	" "	"
5)	El-Koum	"	" "	"
6)	Wadi Foukin	"	" "	"

Personnel Requirements

Each co-op will hire two tractors drivers at circa IL 48,000 per year each. Total costs, all drivers, is $25,000.

5. Project Evaluation

a) Social and Economic Benefits

See Final Goals Section.

b) Cost Analysis

Capital Costs

		US $
1)	Land and Buildings	60,000
2)	Machinery	126,400
	+ 10%	18,640
		205,040

Operation Costs

Annual/Current in IL

1)	Fuels 5 liters per hour at IL 4 per liter	28,000
2)	Oils and Lubricants for engines	550
3)	Depreciation (10%)	12,640
4)	Administration	25,00

Operation Costs (cont.)

	+10%	6,619
Total		72,809

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c) Project estimated income per year

A field tractor or an orchard tractor works around 7 months a year, 25 days a month at 8 hours a day. The price for hiring a field tractor is IL 30 per dunum and for an orchard tractor, Il 40 per dunum. A field tractor can work 3.5 dunums per hour, an orchard tractor 2.5 dunums per hour.

Table No. 5: Project Annual Income Estimates

		US $ per year
Field Tractors		8,520
Orchard Tractor		6,080
Sub Total	1 project	14,600
Total	6 projects	87,600

d)

Benefits/Cost parameter	US $
1. Income estimates	87,600
2. Costs estimates	72,800
3. Benefits/Costs/Ratio	1,203

This parameter indicates a benefit/Costs/Ratio of around (1.20) which in turn, indicates profitability, productivity and feasibility of the project.

e) Project Finance

	US $
Total Costs	205,040
Cooperative	105,040
ANERA/AID Grant	100,000

ANERA grant request from AID: $100,000

Note: Exchange Rates used: US $1 = IL 23 (May, 79)

Title: HEBRON DISTRICT UNION OF VILLAGE ELECTRIFICATION COOPERATIVES-- EXPANSION FOR INDUSTRIALIZATION

1. Introduction

The purpose of this project/grant would be to aid the Union in its plan to expand its provision of electricity to its members. Currently the Union, due to its limited generating capacity and another constraint, only provides electricity in the evening and night. The Union's plan is approximately to double its generating capacity so that electricity may be provided during the day. The primary motive for this expansion is to allow for the establishment of village industries and, in turn, the creation of jobs. A beneficial side effect will be the daylight provision of electricity to domestic households, clinics, schools and shops.

The beneficiary target group will be the 3500 Co-op/Union members in ten villages. With the added capacity, it is expected that more families, shops, and small industries will become members.

The project will take place in the western region of the Hebron District. This region somewhat overlaps with the region serviced by the Tarqumiya Olive Cooperative which was aided last year by an ANERA/AID grant to establish a mechanized unit for land reclamation.

ANERA would be involved in the project for circa one year, i.e., while it is implemented. The Union would continue on its own after this period. It is estimated that the life of the generators is ten

years.

The Union's contribution towards the capital costs of the project would be 50%; ANERA would also contribute 50%.

2. Project Design

Statement of Problem(s)

The problem at its most basic level is the same as stated in the other proposed Hebron District projects (i.e., in Halhul and two in Dura) and last year's Tarqumiya Olive Cooperative project, namely, very low per capita income. In the Halhul region it was found to be $ 256 based on 1977 data. In the region served by this Union (which overlaps the area served by the Tarqumiya Olive Cooperative) and in the region served by the Dura Municipality electrification system (see proposal pp.), the per capita income would be approximately the same. In the Halhul and Tarqumiya projects, the problem was addressed by expanding the cultivable land through reclamation. In this proposed project and in the Dura project, the problem of low income would be addressed by the creation of new jobs via the establishment of village industries. As is well established, the rural areas are suffering considerable demographic changes as individuals and families leave the areas to seek employment. By creating more employment opportunities, this demographic change would be milder.

The people involved in this proposed project are indicated in Table No. 1 below.

Table No. 1: Distribution of the Union's Village Cooperatives

Cooperative	Founded	Village Population	Member Families
1) Al-Dahriya	1972	10,000	750
2) Si'ier	1973	8,000	586
3) Tarqumiya	1974	4,500	513
4) Sourif	1975	4,200	470
5) Al-Fawar	1975	4,500	181
6) Beit Awa	1976	3,500	285
7) Um Allas	1976	500	92
8) Deir Samit	1977	3,200	201
9) Sicca	1978	300	22
10) Al-Shoyoukh	1978	4,000	400
Total		42,700	3500

In that the establishment of industry and the attendant creation of new jobs is the primary goal of the project, the beneficiary group is much greater than the current 3500 member families of the cooperatives/Union.

In sum, the lack of daytime electricity -- the immediate problem to be addressed by this project -- creates negative pressures on income levels, employment opportunities, potential social uses of power, and demographic movement.

Final Goals

The immediate goal of the Union's project is to provide daytime electric power for industrial use. The existing net which supplies only nighttime electricity consists of twelve generators with a

total capacity of 1448 KW. In order to provide daytime electricity, the net will be increased by 1426 KW for a total of 2874 KW. The proposed distribution of the new generation capacity would be as in Table No. 2.

Table No. 2: Preliminary Estimates of Proposed Power Production

Village	Proposed Program Generator Power/KW
1) Al-Dahriya	200
2) Si'ier	200
3) Tarqumiya	200
4) Sourif	200
5) Al-Fawar	120
6) Beit Awa	120
7) Um Allas	72
8) Deir Samit	150
9) Sicca	44
10) Al-Shoyoukh	120
11) Electrification Union:	Supply, Training and Maintenance
Total Power	1426

After the implementation of the project, it is estimated that in circa 12 months, at least 250 workshops will be established in the area, see table 3 for their distribution. The 250 workshops, in turn, would create an estimated 1000 new jobs in the region served by the Union. As a social benefit, it estimated that in a five year period, 4000 refrigerators, 1500 TVs, and 500 washing machines will be purchased. In addition, schools may add electricity for laboratories and classrooms, and clinics will be able to use

electrical equipment.

Table No. 3: Number of Anticipated Workshops[1]

Al-Dahriya	60	Al-Fawar	10
Si'ier	30	Beit Awa	25
Tarqumiya	40	Um Allas	3
Sourif	45	Deir Samit	10
Sicca and Al-Majd	2	Al-Shoyoukh	25
Total			250

[1] The types of workshops which would be established would include: stonecutting, ironsmithing (door and window frames, etc.), minor tractor and car repair, woodworking, and food processing.

The generators have an estimated life of ten years. After this period, they could be renewed or the area might be included in a projected Hebron-wide network, see below.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff expanded, and the net expanded. The Union will then operate the improved network on its own.

3. Project Overview

Project Development and Strategy

Between 1972 and 1978, the Union's cooperatives were established and began operating. Seeing the demand and need for daytime electricity, leading cooperative members of the Union initiated the proposed project in coordination with the Hebron District cooperative office.

A preliminary plan for a Hebron district-wide network is currently being considered. This network would be based out of the Hebron Municipality. If the plan is realized, it is projected that it would not be in place and reach the rural villages for eight to ten years. Given the ten year lifetime of the generators this proposed project meshes well with the Hebron Municipality's preliminary plan. The non-generator parts of the Union's network extension would be usable in the Municipality's plan (See below for cost details on this.).

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process of modernization that has already commenced.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, i.e., the continued operation of the network, is assured in the following ways. First, the Union will

be covering all administrative costs. Second, the Union will be paid for the provision of electrical power. Technically, the equipment is not difficult to operate and repair. The Union is currently operating the existing network quite efficiently. The Hebron Union of University Graduates' Polytechnic, partially funded by an ANERA/AID grant last year and a second grant being proposed this year (see pp.), will be training more qualified technicians to operate and repair such electrical networks.

Project Potential

From a technical viewpoint, this project could be replicated by another Union or a Municipality. From a demand standpoint, observers (including ANERA) note that a high proportion of non-electrified villages wish to be included in a network. However, as with many other institutions in the Occupied Territories, sufficient investment capital is lacking due to current constraints. Replication, thus, is problematic. With outside help, however, replication is possible.

Project Summary -- Five AID General Criteria for MESRF Grants

(1) Development -- Yes. For details, see above.

(2) Training -- No.

(3) Poorer elements -- Yes. See above.

(4) Self-sufficiency -- Yes. For details, see above.

(5) Self-help/complement local efforts -- Yes. For details, see above and the budget, below.

4. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project. Technically the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month. The ten cooperatives and the Union have already applied for approval.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Union management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is adding staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the installation of the new generators and extension of the delivery network. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designed to help the Union expand its electrical network. All the equipment to be purchased is relatively commonplace. Many West Bankers are familar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below, please find a list of the generators and other equipment to be procured under this project.

Table No. 4: Total Program Estimates

Cooperative	Estimated Generator Power/KW	Cost of Generator US $	Cost of Net Extension[1] US $
Al-Dahriya	200	50,000	15,000
Al-Fawar	120	30,000	10,000
Beit Awa	120	30,000	10,000
Sicca	44	15,000	8,000
Deir Samit	150	35,000	10,000
Tarqumiya	200	50,000	15,000
Um Allas	72	20,000	10,000
Sourif	200	50,000	15,000
Si'ier	200	50,000	15,000
Al-Shoyoukh	120	30,000	10,000
Electrification Union	-	22,000	-
Total	1426	382,000	118,000

(1) This includes wire, poles, switching equipment, etc.

The material will be purchased in the West Bank and Isreel. Delivery will occur from one month to around nine months after the project grant is finalized. The Union will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project.

The Cooperative will provide its own personnel for the unit as follows:

1) One Engineer - for the whole program

2) Ten Accountants, one for each unit

3) Ten Generator Operators, one for each unit.

The Engineer will be in charge of the whole program. He will also be in charge of training the operators, if they do not already have sufficient expertise.

5. Project Evaluation

The project may be evaluated against the following projections:

(1) Social Benefits

(a) An estimated 250 workshops would be established in the area during the first year of operation.

(b) An estimated 1000 new jobs would be created in the area as a consequence of (a).

(c) The emigration of skilled manpower would decline.

(d) As a result of (a) and (b) the level of domestic demand would be increased and would positively affect the whole economic activity in the area.

(e) Per capita income would improve as a consequence of the creation of new jobs.

(f) Domestic standard of living would be enhanced by introduction of electric equipment such as refrigerators, washing machines, and heaters.

(2) Tangible Benefits

Electric power supply would be increased from 1448 KW to 2874 KW as indicated by the following Table No. 5.

Table No. 5: Comparison of Total Power

Cooperative	Existing Power/KW	Number of Generators	Proposed Generator Power/KW
1. Al-Dahriya	350	3	200
2. Al-Fawar	145	2	120
3. Beit Awa	116	2	120
4. Sicca	44	1	44
5. Deir Samit	110	1	150
6. Tarqumiya	260	2	200
7. Um Allas	44	1	72
8. Sourif	110	1	200
9. Si'ier	197	2	200
10. Al-Shoyoukh	72	1	120
Sub-Totals	1448		1426
Grand Total			2874

6. Project Funding

Financial Plan/One Year Only

The capital costs of this project appear as follows:

		Cost
I.	Generators	$382,000
II.	Net Extension	118,000
	Total	$500,000

Project Finance

I.	The Union	$250,000
II.	ANERA/AID Grant	250,000
	Total	$500,000

ANERA grant request from AID: $250,000.

Title: DURA MUNICIPAL ELECTRIFICATION PROJECT-EXPANSION FOR INDUSTRIALIZATION

I. Introduction

The purpose of this project/grant would be to aid the Dura Municipality in its plan to expand its provision of electricity to its region. Currently the Municipality, due to its limited generating capacity and another constraint, only provides electricity in the evening and night. The Municipality's plan is to approximately triple its generating capacity so that electricity may be provided during the day. The primary motive for this expansion is to allow for the establishment of industries and, in turn, the creation of jobs. A beneficial side effect will be the daylight provision of electricity to domestic households, clinics, schools and shops.

The beneficiary target group will be the population of the rural town, 15,000 people. (In a second phase, four neighboring villages would be added to the grid.) The project will take place in the Dura municipal area which lies 12 kilometers to the southwest of Hebron City. The larger region around Dura is served by the Dura Agricultural co-op, the subject of another proposed subgrant in this proposal.

ANERA would be involved in the project for circa one year, i.e., while it is implemented. The Municipality would continue on its own after this period. It is estimated that the life of the generators is ten years.

The Municipality's contribution towards the costs of the project would be 71%; ANERA would also contribute 29%.

II. Project Design

Statement of Problem(s)

The problem at its most basic level is the same as stated in the other proposed Hebron District projects (i.e., in Halhul and in Tarqumiya) and last year's Tarqumiya Olive Cooperative project, namely, very low per capita income. In the Halhul region it was found to be $256 based on 1977 data. In the region served by this Municipality (which overlaps the area served by the Dura Agricultural Co-op) and in the region served by the Hebron District Union of Village Electrification Co-ops, the percapita income would be approximately the same. In the Halhul and Tarqumiya agricultural co-operative projects, the problem was addressed by expanding the cultivable land through reclamation. In this proposed project and in the Hebron Electrification Union project, the problem of low income would be addressed by the creation of new jobs via the establishment of industries. As is well established, the rural areas--Dura is a rural town--are suffering considerable demographic changes as individuals and families leave the areas to seek employment. By creating more employment opportunities, this demographic change would be milder.

Related problems within the above general context are:

(1) the existing electrical system is not adequate for the supply of daytime electricity.

(2) the need to place electrical pumps on existing wells for irrigation purposes. The current pumps are operated manually.

The beneficiaries of the project are the entire population of the Dura Municipal area, 15,000 people. In a second contemplated phase, not included in this proposal, four villages would be added to the network.

They are:

1) Sheikh Salama
2) Khursa
3) Al-Tabaqa
4) Dura-Mar'u Entrance Suburb

In sum, the lack of daytime electricity -- the immediate problem to be addressed by this project -- creates negative pressures on income levels, employment opportunities, potential social uses of power, and demographic movement.

Final Goals

The immediate goal of the Municipality's project is to provide daytime electric power for industrial use. The existing net which supplies only nighttime electricity consists of one 300 Kw/h generator.

In order to provide daytime electricity, two generators of 250 KW/h each will be added to the net which would then total 800 KW/h.

During the first year, it is estimated that newly available daytime electricity will generate the following:

		No.	No. of Jobs
1.	Carpenter Shops	10	100
2.	Blacksmiths	10	100
3.	Stone-cutting Shops	10	160
4.	Electric Irrigation pumps	20	40

5.	Household refrigerators	500	--
6.	Grocery Shop refrigerators	30	--
7.	Meat Shop refrigerators	10	--

In addition, schools may add electricity for laboratories and classrooms, and clinics will be able to use electrical equipment.

As an added benefit, the Municipality will be able to generate more funds through the project. Because it will establish charges for the electricity slightly above costs (see below), a monetary surplus will be produced. This surplus then will be applied to the Municipality's programs for its citizens, much in the pattern of last year's Halhul Wholesale Fruit and Vegetable Market project.

The generators have an estimated life of ten years. After this period, they could be renewed or the area might be included in a projected Hebron-wide network, see the Hebron District Union of Village Electrification Co-ops proposal.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff expanded, and the net expanded. The Municipality will then operate the improved network on its own.

III. Project Overview

Project Development and Strategy

The rural town of Dura first installed electricity in 1976. Desiring to expand the provision of electricity to daylight hours, the Mayor and Council Members sought out ANERA for possible funding. In addition, a small loan has been secured from the Jordan Government for this purpose.

Project Impact

Predicting possible positive or negative effects of this projects on other than the target groups is problematic. On a very general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process of modernization that has already commenced.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, i.e., the continued operation of the network, is assured in the following ways. First, the Municipality will be covering all administrative costs. Second, the Municipality will be paid for the provision of electrical power.

Technically, the equipment is not difficult to operate and repair. The Municipality is currently operating the existing network quite efficiently. The Hebron Union of University Graduates' Polytechnic, partially funded by an ANERA/AID grant last year and a second grant being proposed this year, will be training more qualified technicians to operate and repair such electrical networks.

Project Potential

From a technical viewpoint, this project could be replicated by another Union or a Municipality. From a demand standpoint, observers (including ANERA) note that a high proportion of non-electrified villages wish to be included in a network. However, as with many other institutions in the Occupied Territories, sufficient investment capital is lacking due to current constraints. Replication, thus, is problematic. With outside help, however, replication is possible.

Project Summary -- Five AID General Criteria for MESRF Grants

(1) Development -- Yes.

(2) Training -- No.

(3) Poorer elements -- Yes.

(4) Self-sufficiency -- Yes.

(5) Self-help/complement local efforts -- Yes.

IV. Project Implementation

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project, which hopefully will be forthcoming in a short period, a few weeks or a month. The Municipality has already applied for approval.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Municipality will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is adding staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the installation of the new generators and extension of the delivery network. Again, ANERA will not be officially involved in this phase.

In technical terms, the following will be accomplished:

(1) Construction of a building to house the generators -- 10 x 12 meters.

(2) Installation of two 250 KW/h generators, bringing total capacity to 800 KW/h.

(3) Extending the existing 30 kilometer net by 20 kilometers (total 50 kilometers) which requires installation of 400 poles, wires, and attendant equipment.

(4) Installation of a synchronizing board.

For the aforementioned second phase, not included in this proposal, the following would be needed:

(1) One step - up transformer

(2) Four step-down transformers

(3) Poles, wire, and attendent equipment.

Technical Considerations

As noted, this project is designed to help the Municipality expand its electrical network. All the equipment to be purchased is relatively commonplace. Many West Bankers are familar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below, please find a list of the generators and other equipment to be procured under this project.

		US $
1)	Two generators Power: 250 KW each Costs: $50,000 each Two generators - Cost	100,000
2)	High-tension Net 400 poles Wires and equipment Costs	100,000
3)	Distribution board Adjustments of the Existing board Costs	2,500
4)	Synchronizing board	25,000

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grand is finalized. The Municipality will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Municipality will provide its own personnel for the unit, namely six technicians and workers.

V. Project Evaluation

The project may be evaluated against the following projections:

(1) Social and Economic Benefits

(a) An estimated 30 workshops and 20 irrigation pumps would be established in the area during the first year of operation.

(b) An estimated 400 new jobs would be created in the area as a consequence of (a).

(c) The emigration of skilled manpower would decline.

(d) As a result of (a) and (b) the level of domestic demand would be increased and would positively affect the whole economic activity in the area.

(e) Per capita income would improve as a consequence of the creation of new jobs.

(f) Domestic standard of living would be enhanced by introduction of electric equipment such a refrigerators, washing machines, and heaters.

(2) Tangible Benefits

Electric power supply would be increased from 300 KW to 800 KW.

(3) Costs - Income Analysis

Capital Costs Estimates

US $.

1) Building

10 x 12 meters

1 sq. meter costs IL. 2000 $ 10,000

(Cont.)

2)	Equipment (excl. Transformers)	$227,500
	+ 10%	23,750
	Total:	$261,250

Operation Costs Estimates
(first year)

Administration	$ 12,000
Fuel (900 Litres a day + motor oil 1 Liter costs IL 3.3)	33,000
Maintenance	10,000
Depreciation	26,125
+10%	8,112
Total:	$ 89,237

Income Estimates

1500 beneficiaries paying ca Il 200 a month	
Annual Municipal Income	$150,000

Benefits-Costs Ratio

Costs	$ 89,000
Income	150,000
Ratio	1,085

The above table indicates a cost benefit ratio which demonstrates the feasibility of the project. As noted above, surplus revenue would be used for the Municipality's programs which benefit the entire population.

VI. Project Finance

I.	Municipality	$251,000
II.	ANERA/AID Grant	100,000
	Total:	$351,000

ANERA grant request from AID: $100,000.

Title: JALAZONE BAKERY CO-OPERATIVE

I. INTRODUCTION

This project proposes to replace the Jalazone Bakery co-operative's antiquated bakery with a modern system so that Co-op members, Jalazone Refugee Camp residents, and surrounding villages may be supplied with a larger quantity and higher quality of bread. The project involves installation of modern machinery and the production of 5000 loaves of bread in its first stage. Such production would serve part of the Camp's needs. In a latter phase, production would be increased to serve bread needs of surrounding villages.

Beneficiaries would be Co-op members (all are refugees in Jalazone Refugee Camp), residents of Jalazone Camp (circa 5000 refugees or 700 families), and residents of the surrounding area (circa 20,000).

The location of the project is in the UNRWA - Jalazone Refugee Camp, 2 kilometers north of Ramallah on the Nablus road.

The Co-op's contribution to the project from its resources would constitute 74%; ANERA's contribution would be 26%.

ANERA would be involved in the project for one year ie as the bakery is being modernized.

Concern may be expressed that this project would supplement existing UNRWA programs. Just the opposite is the case. It is entirely outside of UNRWA's mandate to finance such Co-operative projects. UNRWA's brief is to provide housing and camp infrastruc-

ture, basic rations, health services, educational programs and certain welfare services for registered refugees. Aside from being outside of UNRWA's mandate, the project may have the beneficial effect of helping refugee families secure a measure, albeit limited, of economic and social control over their future. ANERA would encourage comparable projects in the future. (A comparable ANERA/AID project was funded in 1976: Kalandia Camp Women's Handicraft Co-operative.)

II. PROJECT DESIGN

Statement of Problems

The Jalazone Bakery Co-operative was founded in 1965 with 10 members and grew to 31 members in 1966. Subsequent to the 1967 war, no further growth has been experienced. (This project would only go forward -- as agreed to by the Co-op--if the Co-op can significantly increase its membership.)

The Co-op currently runs a one man antiquated facility with very limited output. As such, it does not meet the needs of potential users. Consequently, women undertake the task of baking bread in their homes which is both very time consuming and energy inefficient. On the other hand, the women who do use the bakery's facilities, prepare the dough at home, bring it to the bakery, and then must wait a long time for it to be baked.

Other problems are:

1) the existing 14 year old bakery is in danger of falling apart due to general deterioration and recent cracking.

2) Hygenic conditions are quite poor.

3) Some refugees who cannot bake at home or at the bakery (due to limited capacity), are forced to sell their flour rations. This results in a net loss to the family because the resulting sale price plus baking costs do not buy an equivalent quantity bread on the commercial market.

Final Goals

1) Replace the antiquated bakery with new baking facilities.

2) Produce 5000 loaves of bread per day in phase one which would largely meet demand in the Jalazone Refugee Camp.

3) Phase two would be the expansion of bread making capacity by running the bakery longer hours.

4) Help the refugees improve their baking facility which is complementary to (but not replacing) UNRWA's provision of flour to refugees.

The beneficiaries, aside from the Co-op members, are:

Table No. 1: Beneficiaries of the Project

A R E A	Population
Jalazone Camp	5,000
Upper Jalazone	340
Dura Al-qarie	2,200
Ain Sinya	1,200
Jifna	1,500
Bir Jeit	6,000
Abu Shkheidem	600
Abu Kash	900
Surda	1,200
Al-Bire suburbs	4,000
Beitein	3,000
TOTAL	25,940

Assuming that each person needs three 100 gram loaves per day, demand in the area (no other bakeries exist) would be 75,000 Loaves per day. The market thus is quite large and obviously leaves a gap which may be partially filled by the Co-op's phases one and two.

Project Activity Targets

Upon building up its membership, generating its own funds, and receiving the grant funds, the Co-op would proceed to establish the new bakery and commence operations. This process should take around one year.

III. PROJECT OVERVIEW

Project Development and Strategy

The Co-op was established in 1966 and currently operates an antiquated bakery. Desiring to establish new facilities, the Co-op approached ANERA for partial funding. After a series of meetings, it was decided that the project would only be feasible and capable of generating sufficient internal funds if the Co-op increased its membership to 100-150. On June 10, 1979, the Co-op Executive Committee met with the Ramallah Cooperative Director and took a decision to (1) increase its membership through a membership drive to 150 and (2) establish a new bakery.

Project Impact

The impact on women would be particularly positive as noted above ie, the project would relieve them of the time consuming process of baking bread daily at home or waiting at the old bakery.

Project Continuity

The Co-op will run the project on its own. If it increases its membership, stipulated as a condition for the grant, it will generate sufficient funds for capital costs. The bakery, when producing 5000 loaves per day, more than breaks even financially (see below).

Project Potential

Given sufficient funding the project is replicable. ANERA is encouraging similar projects in refugee camps, making sure they would be outside UNRWA's mandate.

Project Constraints

None are foreseen at this time.

Project Summary

(1) Development - Yes

(2) Training - No

(3) Poorer Elements - Yes

(4) Self-sufficiency - Yes

(5) Self-help/complement local efforts - Yes

IV. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The Ramallah Cooperative Department recommends the project. Hopefully, the Military Governor's approval will be forthcoming shortly.

Implementation Plan

Upon growth of membership and receipt of the grant, the Co-op will purchase land, erect a building, purchase and place equipment, then start production. This process should take one year.

Technical Considerations

The equipment to be purchased is commonplace and easily operable.

Procurement Requirements

		US $
1)	A complete bakery line	$120,000
	a) Dough machine	
	b) Sieve	
	c) Cutter	
	d) Oven	
	e) Moving belt	
2)	A car for bread distribution	10,000
	Total Machinery and Car	$130,000

Personnel Requirements

Table No. 2: Personnel and Costs

Personnel	No.	Yearly Salary
Baker	1	$ 2,000
Asistant Baker	1	1,500
Accountant	1	2,000
Driver	1	2,000
Assistant Driver	1	1,500
Total Administration		9,000

No ANERA personnel will be involved except to see that procurement rules are followed.

V. PROJECT EVALUATION

The project may be evaluated against the following:

1. Social Benefits

   A. Reduction of time women consume in making bread at home or in waiting at the antiquated bakery.

   B. Co-op membership growth

   C. Increase in bread production

   D. Improvement in the bakery's hygenic standards

2. Financial Analysis

Table No. 3: Capital Costs

		US $
1)	Land and Building	24,600
2)	Machinery and Equipment	120,000
3)	Car	10,000
4)	Electric Installations	3,000
5)	Water Installations	1,000
	+ 10%	15,860
	Total	$174,460

Table No. 4: Operation Costs (first year)

		US $
1)	Fuel, electricity, water and others	5,000
2)	Maintenance	1,500
3)	Administration	10,000
4)	Depreciation	13,000
5)	Flour (180,000 Kg/per Year)	42,000

+ 10%	5,850
Total	77,350

Table No. 5: Income from the project
(Per year/at 5000 loaves capacity)

1)	1 Loaf = IL 1.40	
2)	Daily production 5000	
3)	Year Income	$ 105,000

Table No. 6: Benefits/Costs/Ratio

1)	Annual income	$ 105,000
2)	Annual total costs	77,350
3)	Benefits/Costs/Ratio	(1.357)

The cost benefit ratio (1.40) indicates the feasibility and productivity of the project.

VI. PROJECT FINANCE

Capital Costs

Jalazone Bakery Co-op	$ 130,000
ANERA/AID grant	45,000
Total	$175,000

ANERA grant request from AID: $45,000.

Title: JERICHO MARKETING COOPERATIVE VEGETABLE NURSERY PROJECT

I. INTRODUCTION

The Jericho Marketing Cooperative Society is the most active cooperative society in the West Ghor area, i.e., the West Bank side of the Jordan Valley. It serves around 25% of the cultivated land and 25 - 30% of the vegetable production in this area. The proposed project is focused on a modern vegetable seedling nursery which in the first year will produce ca 36% of the area needs -- i.e. around 2,500,000 vegetable "speedlings"* a year as follows:

Table No. 1: First Year Proposed Production of the Nursery

Tomato speedlings	1000,000
Eggplant speedlings	1000,000
Pepper speedlings	500,000
Total	2500,000

The nursery would consist of around 20 plastic green houses for vegetable speedlings production, on an area of around 2 dunums of land -- i.e., 2000 sq. meters. In the following years the size of the nursery will be gradually increased to cover the total demand of ca 7 million speedlings a year in the Ghor valley.

The beneficiaries of the project are the Cooperative members and non-member farmers of the area. The Co-op members currently

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"Speedlings" are an advanced version of seedlings. The "speedling" system is widely used in the U.S., Israel, West Bank and Gaza.

total 107. The Agricultural Engineers Cooperative with which ANERA/AID had a project last year, is a member of the Jericho Marketing Cooperative. The Ghor area has around 25,000 inhabitants almost entirely dependent on agricultural production. They, too, would be beneficiaries.

The proposed nursery would be located in Aqbat-Jaber in Wadi Quilt area near Jericho. Jericho is 1580 feet below sea level; Aqbat-Jaber is 1350 feet below sea level, making it more suitable for a nursery than the Jericho area. ANERA's share of the project's cost would be 49%; the Cooperative would pick up the 51% balance.

The Cooperative proposes to start implementing the project in winter 1979. ANERA's involvement in the project would last approximately one year after which the Co-op would sustain it indefinitely.

II. PROJECT DESIGN

Statement of Problem(s)

The Ghor area is almost entirely agricultural. The cultivated area is around 27,000 dunums, of which 20,000 dunums are planted with vegetables. The cooperative serves around 10,000 dunums, i.e., 37% of the total Ghor area. Fifty percent of the latter area is planted with vegetables, i.e., around 5000 dunums. The demand for vegetable speedlings varies from year to year, depending on export markets for vegetables and on local demand and prices. However, the average total demand for vegetable speedlings is around 7,000,000

a year.

Table No. 2: Vegetable Cultivation in the Ghor Area
(In Dunums)

		1978/79	Average
Tomatoes		5,850	6,000
Eggplants		2,900	3,200
Pepper		733	800
	Sub-total	9,483	10,000
Others		10,849	10,000
	Grand Total	20,332	20,000

One of the major problems for the farmers is related to the supply of speedlings which are currently provided from the following sources:

Table No. 3: Sources of Speedlings for the Ghor Valley

	Source	Percent	Distance From Jericho
1)	Farmers' own production	35%	-
2)	Israel: Hisqail nursery in Beit Dajan	25%	100 Km
3)	West Bank: Qi'edan nursery in Tulkarm	40%	100 Km

The three sources for speedlings pose significant problems for the farmers. First, the Hisqail and Qi'edan nurseries, although they produce the best quality seedlings, pose the following problems:

1) As a consequence of high demand for the speedlings

coupled with the distance from the source, the Ghor farmers are at a significant disadvantage in making their offers for speedlings at the correct time and having them delivered and ready for planting in a timely fashion.

2) Due to distance, transport costs are relatively high. The costs raise the effective price to the farmer by 10 to 14%. E.g., the transport of 100,000 speedlings currently costs circa IL 2500 - 5000. (See Table No. 4).

3) Transportation also results in damage to the speedlings. This damage is in the 10 to 12% range.

Table No. 4: Estimated Prices of Speedlings and Transport Costs

	In IL/for (100) Speedlings
Existing Nursery current prices	IL 27.50 - 40.00
Transportation Costs	2.50 - 5.00
Estimated Co-op Nursery prices	25.50 - 35.00

On another level, a sophisticated nursery in the Ghor area became a necessity because locally produced seedlings (see table No. 3) have not matched the development of cultivation in the area. The farmers in the Ghor area are employing agrotechnical methods which include seed-bed preparation, plastic mulch, modern irrigation methods, and highly adapted farm machinery. It is now estimated that 50% of the Ghor area planted with vegetables are irrigated by the new drip-irrigated method which is fully integrated

with specific cultural field practices and crop production requirements, such as application of fertilizers, pest control and the use of hybrid varieties with high yielding potential. The costs of hybrid seeds are very high. One kilogram of hybrid seeds of tomatoes of the most commonly used variety (1684) costs about US $ 2000. This high cost has required the farmers to adopt the new "Speedling System", which was introduced in Israel a few years ago from the US, and is now widely used in the West Bank and Gaza. Fifty percent of the Ghor area grown with tomatoes, eggplants and pepper is based on speedlings (see Table No. 2).

Second, another major problem resulting from the source of speedlings, is related to viruses which affect the Ghor production of seedlings. Table No. 3 indicates that 35% of the total demand for seedlings is met by the Ghor farmers themselves. Due to their lack of ability to control viruses, their seedling production is highly infected which lowers the ultimate production of vegetables. Viruses affecting speedlings in the Ghor may be controlled in modern nursery greenhouses by the installation of fine mesh.

Final Goal(s)

On the supply side the farmers of the Ghor area need approximately seven million vegetable speedlings, i.e., tomatoes, eggplant and pepper. These are mainly provided by highly developed Israeli and West Bank nurseries in the form of speedlings. A small part of the speedlings is cultivated by the farmers themselves in a traditional way. The Co-op nursery in the first stage will be

producing around 35% of the demand for speedlings, i.e., the demand by cooperative members and non-members alike.

Table No. 5: Supply of Speedlings

	Current Supply	Percent	Nursery Proposed Production	Percent
Tomato	4 million	57%	1 million	14%
Eggplant	2 "	29%	1 "	14%
Pepper	1 "	14%	0.5 "	7%
First Year Totals	7 "	100%	2.5 "	35%
Third Year Totals	7 "	100%	7 "	100%

In the following three years the nursery production as currently planned will be gradually increased to cover the total vegetable speedling needs of the area. This will imply an increase of the size of the nursery itself, i.e., increasing the number of plastic greenhouses.

The effect on the farmers will be the provision of non-diseased and/or less expensive and less damaged speedlings. Please see above for statistics relating to these benefits.

Project Activity Targets

During the first year, the year in which ANERA would be involved, the equipment will be purchased and put into place. During this period, 20 greenhouses, 100 square meters each, will be put into operation. Each greenhouse will produce circa 125,000 speedlings per year, based on three production cycles of 40,000 plus speedlings

each. Total production in the first full year would be 2.5 million speedlings.

ANERA's role should be completed within one year of the funds being made available. The Cooperative itself will sustain the operation for an indefinite period.

III. PROJECT OVERVIEW

Project Development and Strategy

The project was developed as a result of the urgent need to introduce a modern speedling system in the Ghor area to supersede the unfavorable conditions under which vegetable speedlings are currently produced locally or supplied by other producers in Israel and in the West Bank.

The project was proposed by the Cooperative itself and recommended by the Agricultural Department in Jericho, the Cooperative Department in Ramallah, the Ramallah Extension Department and several West Bank agricultural experts and hydrologists.

Project Impact

The impact of the project is essentially to aid in the continuing modernization of agriculture in the Ghor Valley. Thus, this project would just help accelerate a trend that has already started, The project is neutral with respect to women.

Project Continuity

After ANERA provides its share of the project funds, the Cooperative will systain the project on its own out of its own resources.

Co-op members are experienced farmers. As noted above, the Agricultural Engineers Co-op is a member of the Jericho Marketing Co-op. The former will supply expertise to the latter. The West Bank Agricultural Extension Department, which has approved the project, will provide additional expertise.

Project Potential

ANERA anticipates replication of the project in the northern regions of the West Bank, namely in the Tulkarm-Jenin regions, where around 80% of the vegetables for the local market are grown locally.

Project Constraints

No constraints are envisaged at this time.

Project Summary -- Five AID Criteria for MESRF Grants

(1) Development -- Yes.

(2) Training -- No.

(3) Poorer Elements -- Yes.

(4) Self-sufficiency -- Yes.

(5) Self help/Complement local efforts -- Yes.

IV. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The only pre-implementation condition is obtaining permission of the Israeli Military Government. ANERA and the Cooperative have already requested this permission and expect it to be forthcoming in a timely fashion.

Implementation Plan and Schedule

After obtaining GOI approval, the Cooperative will acquire title to a 2 dunum piece of land in the Aqbat-Jaber area (see INTRODUCTION) and will construct a shed-house.

The second phase will be the construction of 20 greenhouses which will be made domestically. At this stage ANERA will assure that proper bidding procedures are followed. This stage would be achieved by the end of winter 1979.

The third stage will be to staff the project and acquire raw materials to prepare for the production which is proposed to begin by August 1980.

At that date the nursery would start producing ca 2.5 million speedlings for the first production year.

The next step would be to enlarge the size of the nursery, enabling it to cover the Ghor area needs of ca 7.0 million speedlings. This phase would require an additional two years. At the beginning of the third production year, the number of greenhouses would reach 50, i.e., the extension of the size of the nursery by 15 greenhouses a year over two years.

Technical Considerations

The "Speedling System" of cultivation is a common practise in the West Bank. The technological aspects of this system are familiar to experts as well as to farmers. Thus, no special problems are are foreseen.

Procurement Requirements

1) Buildings

A shed-house will be constructed (ca 300 sq. meters) for the following functions:

a) Preparation of work
b) Storage of materials
c) Office

Costs: US $ 20,000

2) Greenhouses

20 plastic greenhouses, (each of 100 sq. meters) with exhaust fans

Costs: US $ 15,000

3) Main Irrigation System

a) Water pool
250 m^3 Costs: US $ 2,500
b) Poster (motor)
c) Pump

Costs:
(Poster & Pump) US $ 2,500

4) Instatlation of Water System

a) Main-line (PVC - pipe - 4 inches)
200 meters long at IL 150 a meter

Costs: US $ 1,500

b) High pressure rubber hoses:
30 meters per greenhouse;
600 meters for 20 greenhouses
at IL 70 a meter

Costs: US $ 2,100

c) Fittings for the Water System

Costs: US $ 500

5) Internal Irrigation System

a) Plastic or metallic pipes
1200 meters at IL 20 a meter for
20 greenhouses

b: Nozzles
Number 600

Costs:
(including Nozzles) US $ 1,200

6) Equipment

a) T-shape Trails (Aluminum)
600 meters at IL 20 a meter for
20 greenhouses

Costs: $ 6,000

b) Table-stand (bars)
300 meters at IL 10 a meter

Costs: $ 1,500

c) Trays (Styro foam)
17" x 22" with cells of size: 1",1.5",2"
Number 14000 at IL 35 a tray
(for 1 million speedlings)

Costs: $ 24,500

7) Raw Materials

a) Peatmoss (fertilized)

Costs: $ 12,500

b) Fertilizers, insecticides, etc.

Costs: $ 2,500

c) Spraying - Hand-driven - Motor
Capacity: 100 litres

Costs: $ 900

Personnel Requirements

	Annual Salary
1. One Technician*	IL 72,000
2. Four Handworkers	IL 144,000
Personnel Costs	IL 216,000
Training Costs (first year only)	IL 250,000
Total Personnel Costs (first year)	IL 466,000

* If needed and upon the advice of the West Bank Agricultural Extension Department, the technician may be sent to the U.S. for a short training course in order to acquire up-to-date knowledge on the speedling systems.

V. PROJECT EVALUATION

1) Tangible Benefits

1) Increasing the farmers' disposable income by the difference between current market prices and projected sales prices (see table No. 4). This difference will be at its maximum IL 10 per 100 speedlings, which makes around 28.6% of the estimated nursery maximum prices or around 17.7% of the nursery's estimated minimum sales prices. This consideration is vis-a-vis the distant suppliers of speedlings.

2) Replacing a portion of traditionally produced seedlings in the Ghor area, where they are infected by viruses and of inadequate quality.

2) Intangible Benefits

Introducing the most developed Speedling System in an area

which depends entirely on agriculture. The introduction of such high technology will fits into the recent developments taking place in the area regarding improvement of the quality of the production via the adoption of modern methods of production and the increasing use of drip-irrigation.

3) Cost Analysis

Table No. 6: Capital Costs (excl. land)	US $
1. Building	20,000
2. Equipment	57,300
3. Training costs	12,500
Other	10,200
+ 10%	10,000
Total	110,000

Table No. 7: Operation Costs (First Year)	US $
1. Raw Material	15,900
2. Administration Costs	10,800
Others	3,300
+ 10%	3,000
Total	33,000

4) Income Analysis

Table No. 8: Income estimates (first year)

Estimated speedling production, first year	2,500,000
Estimated nursery prices (Average) per 100 speedlings	IL 30.25
Estimated first year gross income	IL 756,250

5) Cost/Benefit Ratio	IL
Total Estimated Gross Income	756,250
Total Estimated Costs	587,400
Cost Benefit Ratio	(1.28)

This parameter indicates a Benefit/Cost/Ratio of 1.30 which, in turn, indicates the profitability, productivity and feasibility of the project.

6) The project may be evaluated vis-a-vis the five above considerations.

VI. Project Finance

	US $
Total Costs	143,000
Cooperative	73,000
ANERA/AID	70,000

Requested Grant from AID: $70,000

Note: Exchange rate used in converting Israeli pounds into US $ is an average exchange rate of:
1 US $ = IL 20.

Title: EIN SINYEH OLIVE COOPERATIVE --
GRADING, QUALITY CONTROL AND BOTTLING PROJECT

I. Introduction

The immediate purpose of this grant would be to provide partial help to the Ein Sinyeh Cooperative so that it can purchase equipment for establishing a modern olive oil bottling unit and a technically sound grading and quality control unit for the olive oil that is to be bottled. Ein Sinyeh is located seven kilometers north of Ramallah in the Ramallah District of the West Bank. The source of the funding for the project would be: 50% from the Cooperative and 50% from ANERA.

The unit which the Cooperative wishes to establish would be capable of handling approximately one third of the surplus, exportable olive oil of the West Bank. The initial plan, however, is to bottle a smaller portion and subsequently expand as demand warrants. Currently, because of the lack of such facilities, the farmers are unable to dispose of their excess, exportable production, due to reasons outlined below, and are thus suffering a diminution of income. This project would help to rectify this problem. This project should also be considered as complementary to last year's Deir Sharaf project. The two are in close coordination.

Three categories of beneficiaries of this grant/project may be defined. First, the Cooperative's membership would be the primary

beneficiary group. The membership now numbers 583 and has been steadily growing. Co-op officials and senior officers of the Government's Cooperative Department estimate conservatively that the rate of growth will be 40 members per year for the next few years. Second, non-Co-op members currently use the olive oil pressing facilities of the Co-op and are beneficiaries. This group numbers around 1000 farmers at the present time.

The third category of beneficiaries are the Olive Press Cooperatives of Beit Jala (ANERA soap making project last year) and Deir Qaddis, their members and non-member patrons. This group would be beneficiaries because the Ein Sinyeh bottling unit would service its excess olive oil production.

The duration of the project from ANERA's official standpoint would be one year, during which the machinery/equipment would be purchased. The Co-op would be involved indefinitely; that is, as long as it maintains a bottling and quality control unit. It already has the land for the plant and will be building the structure to house the unit in the coming months. The project will take place at the physical site of the Co-op on the main road from Ramallah to Nablus.

II. Project Design

Statement of Problem(s)

The basic problem is the inability of the farmers to market adequately their surplus production of olive oil, a problem which

has become quite acute in the last two years.

According to the statistics put out by the Department of Agriculture, the production, use and surplus of olive oil in the West Bank for a six year period appear as follows:

VIRGIN OLIVE OIL PRODUCTION IN THE WEST BANK

1972 - 1977

Year	Area Dunums 1000s	OIL / 1000 TONS			
		Production	Domestic Use	For Industrial Use	Surplus (Deficit)
1972	566	20.6	5.5	2.0	13.1
1973	623	5.0	5.0	2.0	(2.0)
1974	618	25.0	7.5	2.5	15.0
1975	627	4.2	5.0	0.0	(0.8)
1976	621	15.1	5.5	2.5	7.1
1977	654	3.2	4.0	2.5	(3.3)
Total	3709	73.1	32.5	11.5	29.0
Average	618	12.1	5.4	1.9	4.8

Percentage and District Areas for 1977

Nablus	22% -	142550	dunums
Tulkarm	34% -	221490	"
Jenin	19% -	127000	"
Ramallah	22% -	146235	"
Hebron	3% -	16835	"
		654110	".

c. 4 dunums equals 1 acre

Furthermore, as may be derived from the above table, the area under olive production is increasing. During the 1972-77 period the rate

averaged around six percent per year. Currently, the Departments of Agriculture and the Cooperative Department report that it is increasing at a 10% rate. Also, with reference to the above table, the pattern of every other year of high production held true for 1978. 1979, again following the pattern, will be a low production year.

The problem of the marketing of the surplus olive oil has grown considerably during recent years. Prior to occupation, the West Bank surplus production was marketed freely in the East Bank of Jordan and abroad. The Government of Jordan regulated the market in a manner which was adequate for the times. Since occupation, this regulation has not been available. Consequently, as reported by Government cooperative officials, Agricultural Department officials and competent observers of the market, merchants started purchasing the surplus production of virgin olive oil at low prices. They then adulterate it with oil from the secondary pressing (residue oil) and low quality imports. The adulterated oil they sell in East Jordan as virgin oil.

Because this practice in the West Bank has not been curtailed by government action, two years ago the Jordan Government forbade the import of West Bank olive oil or its transit to other Arab markets. Last year some olive oil was allowed into Jordan via the Union of West Bank Olive Press Cooperatives. The latter is attempting to set standards for quality and marketing of West Bank olive oil.

This practice on the part of the merchants has also hurt the

sale of West Bank olive oil in the West Bank itself. Many individuals who do not have a reliable source turn to imports.

Another major reason for establishing a bottling unit at Ein Sinyeh -- and a tinning unit at Deir Sharaf -- is a basic change in the nature of West Bank, Jordanian, and other Arab society. A number of years ago, the society was largely dependent on yearly income based on farming. Consequently the large 18 kilogram tins of oil then and now on the market, quite adequately met the packaging demand of the people. Society has now significantly changed whereby the large majority of the society are wage earners. Due to this new cycle of earning, there is a strong demand for smaller containers of olive oil, e.g., one and two kilogram containers. The Spanish and Italian olive oil meets this demand and is consequently highly competitive. Ein Sinyeh and last year's complementary Deir Sharaf unit would intend to raise the competitiveness of West Bank olive oil to the current market level by packaging it in a manner similar to that of the imports.

This situation in the market which has developed over the past few years has deprived farmers of a significant portion of their potential income. On somewhat over one third of their production on the average over the years (see the above table), they have been receiving a very low income. This deprivation of income broadly affects West Bank farmers; that is, those who grow olives and produce olive oil. Olive oil production is the most important, largest

crop on the West Bank.

Final Goals

The final goal of this project/grant is to create a system whereby a portion of the surplus, exportable virgin olive oil may be exported under quality controlled conditions and be competitive in the market. In turn, this will increase the incomes of ordinary farmers; that is, it will allow the farmers to make up the income which they are now deprived of.

This goal will be realized in the following manner. The Ein Sinyeh Cooperative will set up a bottling and quality control plant on its premises. By establishing and guaranteeing the quality of the oil in conjunction with the Union of Cooperative Olive Oil Presses, the Co-op will export its product to Jordan and via Jordan to other Arab countries. The Co-op officials and senior officials of the Government Cooperative Department have discussed this matter with relevant Jordanian Government officials. The latter have given assurances to the West Bank/Ein Sinyeh officials that their product may be so exported if the Co-op and Union guarantees the virgin olive oil's quality and bottles it under its own control.

The beneficiaries and their numbers were outlined above. The Ein Sinyeh Co-op, as noted above, directly serves the Ramallah District. The villages, dunumage, and population affected are:

	Town/Village	Olive Area Dunums	Population
1)	Ein Sinyeh	1,500	1,500
2)	Ein Yabroud	1,200	3,000

3)	Al-Mizira'a Asharqia	2,000	3,000
4)	Jifna	1,500	2,800
5)	Silwad	3,000	4,000
6)	Bir Zeit	4,000	4,000
7)	Ramallah - Al-Bireh	3,000	20,000
8)	Yabroud	600	1,000
9)	Burqa	1,500	1,500
10)	Abu-Qash	500	1,500
11)	Aroura	2,000	3,000
12)	Abu Shkheidem	500	1,800
13)	Jibia	750	500
14)	Burham	750	800
15)	Attaibeh	3,000	4,000
16)	Um-Saffa	1,000	500
17)	Deir Dubwan	5,000	6,000
18)	Beit Illu	4,000	3,500
19)	Singil	1,000	3,500
20)	Ub'Wain	2,000	3,000
	Total:	38,800	68,900

Project Activity Targets

Within one year of making the grant, the quality control and bottling unit will be an operating concern. The Cooperative already possesses adequate land for the plant and has lined up its own portion of the funds for the project. The various pieces of equipment must be ordered and shipped through a local agent from abroad, a process that often takes a few months. Bids are currently being solicited. The basic raw material, the virgin olive oil, is locally available.

Consequently, ANERA's role should be completed within one year of the funds being made available. The Cooperative itself will sustain the operation for an indefinite period.

Looking at target dates from another standpoint, Ein Sinyeh initially anticipates bottling its own 250 ton surplus. The second stage would be to bottle the 450 ton surplus of the Beit Jala and Deir Qaddis Cooperatives. If the market still has a strong demand, the Co-op would then acquire more olive oil to bottle, or potentially bottle oil on commission for farmers.

III. Project Overview

Project Development

The Ein Sinyeh Olive Press Cooperative was founded in 1964 and registered according to Law No. 17/1956 under No. 236/1 Sept. 1964. The main goals of the cooperative are:

1) Olive oil pressing and processing.
2) Providing agricultural machinery and agricultural services.
3) Marketing of olives and olive oil of members and non-members.

The cooperative is one of the most successful olive press cooperatives on the West Bank. It started with 270 members in 1964 and it is anticipated that the membership will reach 700 in 1980:

Cooperative Membership

Year	No. of Members
1964 - 67	270
1968	466
1977	583
1980 (estimated).	700

While the members of the Cooperative were the originators of the project concept and make the final decisions, they have benefited greatly from the technical advice of others, notably the Director of Cooperatives/Ramallah District and the Union of Olive Press Coops. ANERA maintains a close working relationship with the Cooperative officials and the Director of Cooperatives in the development of this grant project and hopefully in its realization.

As such, the technical staff of the Government in the West Bank approves and recommends the project. It has already been sent by the Government and ANERA to the Military Government for approval.

Project Strategy

The proposed Ein Sinyeh project would service the middle and southern regions of the West Bank, namely Ramallah, Bethlehem and Hebron areas which constitute around 25% of West Bank olive growing area.

The complementary Deir Sharaf project should cover the Jenin, Tulkarm and Nablus areas, i.e., 75% of West Bank olive growing area.

West Bank Olive Trees

Distribution

Area	Dunum	Percent of Total
Nablus	142,550	22%
Tulkarm	221,490	34%
Jenin	127,000	19%
Sub-Total	491,040	75%
Ramallah-Bethlehem	146,235	22%
Hebron	16,835	3%
Grand Total	654,110	100%

Project Impact

The impact, in a negative sense, of the project on other than the beneficiaries is essentially minimal. The big merchants will be touched by the success of the project; no negative repercussions, however, are expected from this source. One small commercial olive oil bottling plant exists in Ramallah. Due to the extent of the oil surplus, there exists adequate room for the three facilities. As anticipated in last year's Deir Sharaf proposal, the need for this third facility would soon arise.

The impact of this project on women and cultural values is essentially neutral.

Project Continuity

The question here revolves around the Co-op's ability to run the plant. There is no question of a second grant to this Co-op for this purpose. The grant request funds do not cover the entire costs of the equipment, much less the envisioned costs of administration and raw materials. Consequently, continuity is assured if the plant can be established, bottling started, and the project successfully marketed. The Co-op members, management, and the government advisors are all confident this will occur. It should also be noted that this cooperative has a long history of excellent experience. Its ability to expand its functions in the manner here proposed is taken for granted by the Cooperative Department, the Union of Olive Press Co-ops and other observers.

Project Potential

Given sufficient market demand and supply (which is anticipated) and capital formation ability, this project could easily be replicated.

Project Constraints

None are foreseen at this time.

Project Summary - Five AID General Criteria for MESRF Grants

1) Developmental -- Yes. For details, see above.

2) Training -- No.

3) Poorer elements -- Yes. The Cooperative serves ordinary farmers.

4) Self-sufficiency -- For details, see above.

5) Self-help/Complement local efforts -- Yes. For details, see above and the budget below.

IV. Project Implementation

Pre-Implementation Conditions

Two kinds of conditions need to be met before the project can be realized. First, the Co-op must obtain licenses which are purely routine. This will take a month or two. Second, the permission of the Military Government to start the project must be obtained. This is already in process and permission will hopefully be given in a matter of months. Similar projects have been approved by the Military Government.

Implementation Plan and Schedule

The first phase is the construction of the physical plant. This will be started once the Co-op has assurances of complete

funding; construction would take circa four months. The second phase is the purchase of the equipment, a phase which will occur simultaneously with phase one and will be governed by the same conditions. ANERA staff will oversee this phase to insure that proper bidding procedures are observed where necessary. This phase will take one to six months, the variable being delivery time. The third phase would be to hire a staff, a matter of a very short time. The fourth phase is the operation of the plant which will continue indefinitely. ANERA will not be officially involved in phase three or four.

Technical Considerations

The only question here is the nature of the quality control and bottling equipment and the ability of the Cooperative to handle it. Initially, it should be noted the Co-op personnel are already running very modern olive presses with no difficulty. The complexity of the proposed equipment is of a similar nature. (Similar equipment, incidentally, is employed in the West Bank and Gaza in the food processing and bottling industries. These experiences have been quite positive.) Thus, no problem is anticipated here.

Procurement Requirements

The Cooperative will purchase the equipment itself through a local agent from foreign manufacuturers. It has already procured information and prices, on which the budget is estimated. Delivery time may take up to six months. ANERA will not be involved in the technical part of this process unless requested. ANERA will insure

bidding is proper where required and the equipment actually arrives.

The equipment to be purchased would include:

a) Land Bulldings, Stores and Reservoirs

1) Workshop 9 x 18 = 162 sq. meters at US $150 a meter	Costs:	$ 24,300
2) Stores 150 sq. meters at US $120 a meter	Costs:	$ 18,000
3) Oil Reservoir of the capacity of 90 tons, 110 sq. meters at $150 a meter	Costs:	$ 16,500
4) Land 2 dunums at $30,000 a dunum	Costs:	$ 60,000
Sub-Total a)		$118,800

b) Machinery

1) Bottling unit (complete) Capacity: 1500-2000 bottles per hr.	Costs:	$ 60,000
2) Air Compressor	Costs:	$ 4,950
3) Oil Filter	Costs:	$ 14,850
4) Bottle cleaning machine	Costs:	$ 13,500
5) Electric Table (multipurpose)	Costs:	$ 18,000
6) Small laboratory for quality control	Costs:	$ 4,500
Sub-Total b)		$115,800

c) Bottling Requirements

1) 400,000 bottles, capacity: 650 grams price: US $ 0.12	Costs:	$ 48,000
2) 3400 boxes, price: US $ 0.45 a box	Costs:	$ 15,300
3) Labels	Costs:	$ 3,000
Sub-Total c)		$ 66,300
GRAND TOTAL		$300,900

Personnel Requirements

The Cooperative will handle personnel requirements. The anticipated staffing pattern would be:

	Occupation	No.	Annual Salary
1.	A Director and Accountant	1	IL 72,000
2.	Handworkers	4	IL 172,000
3.	Technician	1	IL 72,000
	Total		IL 216,000 = $10,800

Although this is a new operation, no training requirements are necessary. The laborers may be trained on the job. The tasks to be performed are not complicated. Sufficient expertise exists on the West Bank to easily find a technician.

V. Project Evaluation

A. Intangible Benefits

a) The introduction of olive oil processing into the area.

b) Building the basis for opening international export marketing.

c) Helping domestic olive oil marketing to be competitive with foreign imported oils.

B. Cost Analysis

Capital Costs	US $
1) Land, Building, Stores and Reservoir	118,800
2) Machinery	115,800
+ 10%	23,460
Total:	258,060

Operation Costs	US $
1) Bottling Requirements	66,300
2) Administration	10,800
3) Depreciation	15,250
4) Maintenance	21,000
5) Consumption	30,300
+ 10%	14,365
Total:	$158,015

C. Income Estimates (first year)

250 tons bottled in 385,000 bottles of 650 grams each

Prices: $2.25 a bottle

1) Gross income	$866,250
2) (minus) Oil costs to be paid back to farmers (250 tons at $2400 a ton)	- $600,000
Adjusted income estimates	$266,250

D. Benefit/Cost/Analysis

1) Income estimates	$266,250
2) Costs estimates	$158,015
3) Benefit/Costs/Ratio	$ 1.684

This parameter indicates a benefit costs ratio of around (1.70) which indicates the profitability, productivity and feasibility of the project.

The grant may be evaluated vis-a-vis the four major points above.

VI. Project Funding

A. Financial Plan

The details are in the previous sections.

The total capital costs minus 10% are $300,900 as is indicated in the procurement section.

B. Capital Input

1. Ein Sinyeh Cooperative	$150,900
2. ANERA/AID	$150,000
Total	$300,900

Requested grant from AID: $150,000

Title: JENIN REGIONAL AGRICULTURAL MARKETING COOPERATIVE-
PHASE I

I. INTRODUCTION

Recognizing the urgent need to address the question of agricultural produce (especially vegetables) marketing, a group of farmers in Jenin formed the Jenin Regional Agricultural Marketing Co-operative in February 1979. By March, membership had grown to 150 and is expected to climb to 750 by the end of the year.

The marketing problem immediately arises out of significantly enhanced vegetable production and new requirements for vegetable export which must be met by the farmers. Older problems to be addressed are the marginally high prices charged by truckers and marginally low prices payed by commission agents when purchasing farmer's produce. By operating collectively and with the benefit of certain equipment, the farmers believe they can overcome some of the problems.

Phase I of the project consists of the establishment of a marketing unit composed of: (1) Truck scale, (2) Saw-mill for making boxes, (3) cooling unit, (4) an electric generator, and (5) Buildings.

The beneficiaries of the project (Phases I and II) are the Co-op members -- 150 in March 1979, 750 in early 1980 -- who are expected to increase dramatically in number over the coming three years, and non-member farmers families (25,000) in the 70 villages and towns of Jenin region.

The Coop is located on the outskirts of Jenin town, but serves the entire Jenin Region which lies in the northern part of the West Bank.

The Co-operative would cover 70% of the capital costs of Phase I of the Co-op project; ANERA would provide 30% of the costs. The Co-op expects to have Phase I of the project in operation within one year.

II. PROJECT DESIGN

Statement of Problems

The Jenin Region has long been a net exporter of vegetables and other agricultural produce. In recent years, production has climbed, creating additional surplus. Consequently, as in many other rural regions as recognized by development experts, marketing of the surplus has become a problem, expecially as farmers move from subsistence to cash crop situations.

Significant markets open to the Jenin farmers are three:

1) West Bank
2) East Bank of the Jordan
3) Gulf states

(Potentially, European markets may open up in the future. Israeli markets are problematic due to competition from the same production.)

The specific marketing problems faced by the farmers are:

1) Truckloads of produce traveling to East Jordan (for East Jordan and Gulf markets) must indicate official gross and net weights. In the Jenin district, no ground-scale exists. The nearest such scale is 25 kilometers to the north of Jenin town (exactly the opposite direction a truck must take to the Jordan bridge). This factor adds on IL 1000 to the costs of shipping one truck load of produce.

2) As East Jordan has modernized its economy, it has issued new regulations. A September 1978 regulation was that all agricultural produce must be packed by specific category (grades 1, 2, 3, etc) and in specific containers. In the West Bank, such containers, wooden boxes, are only made in a traditional manner and in a limited quantity in a few workshops. The price of these, when available, is excessive. The Co-operative will be able to produce the boxes at 60% of the current market price.

3) The Government of Jordan has set specific quotas on exports from the West Bank. Fifty percent of production may be exported; 50% it is assumed will be consumed locally, according to the quotas. Due to the aforementioned increase in production, the latter is not the case, resulting in a higher farmer demand for export.

4) The quantity and quality of East Jordanian fruit and vegetable production has increased dramatically with the

phasing in of the East Jordan Valley Scheme. This has created new levels of competition for Jenin (and West Bank) produce, necessitating the modernization of marketing, quality control, and food processing in order to compete in traditional markets and to open up new markets, eg. Europe.

5) More traditional problems are: the excessive charges for transportation, boxes, etc.; high profits taken by commission agents; excessive time consumption when a farmer attempts to export by himself.

Final Goals

The final goals of the Co-op project are to ease the marketing process and solve farmer marketing problems.

The Jenin Region is the largest in the West Bank and may be characterized as a mixed crop region. The table below indicates the current level of production:

Agricultural Production in the Jenin Region

Variety	Estimated Area in Dunums	Estimated Average Production Tons/per Year
Olive oil	127,000	5,000
Tobacco	5,000	600
Citrus	2,600	6,400
Dry-land-crops	141,000	56,400
Irrigated vegetables	8,200	24,000
Fruits	4,100	1,400
Total	287,900	93,800

Of the above production, circa 47,000 tons may pass over the Jordan River to East Bank and Gulf markets. An additional circa 25,000 tons seeks markets in the West Bank, for a total of 70,000 tons.

To meet the marketing needs of its members and the 25,000 farmer families in the region, the Co-op has set up a two phased program.

Phase I

The goals of Phase I are as follows:

1) The establishment of a truck ground-scale to meet East Jordanian official weighing requirements and save costs.
2) the establishment of a saw-mill to manufacture boxes for farmer produce at below the current price and according to required specifications;
3) the establishment of a cooling unit (with generator) so that the Co-operative can organize and phase the sale of agricultural produce;
4) the purchase of land and erection of buildings to house Phases I and II;
5) advise farmers on needed production according to anticipated demand;
6) shift the bureaucratic and official burden of obtaining export permits from farmers to the Co-operative. This would also curtail farmers' use of commission-agents.

(The Co-operative has already secured permission to issue export permits from the East Jordanian Authorities.)

Phase II

7) the establishment of a vegetable processing plant to handle region-wide excess production;

8) the establishment of a sorting and grading unit to meet the high grade quality standards of the East Bank, Gulf, and Europe;

9) purchase of ten transport trucks to lower currently marginally high transport costs;

10) search out new markets in the Middle East and Europe.

The equipment to be purchased in Phase I and put into operation, are:

1.	Ground-scale	$ 45,000
2.	Saw-mill	30,000
3.	Cooling unit	120,000
4.	Generator	45,000
		$240,000

Project Activity Targets

It is anticipated that all equipment will be purchased and operating within one year. Co-operative services are already being offered to the farmers of the Region.

III. PROJECT OVERVIEW

Project Development and Strategy

This project is similar to the establishment of other large co-ops noted in this proposal. As to needs for marketing services which generated the demand for this project, see above.

As noted, the Co-op was recently established to meet known demands. Recognizing the need for certain capital in-put, the Co-op with the full approval of the Nablus/Jenin Co-operative Department approached ANERA for partial funding.

Project Impact

Certain individuals eg commission agents, will feel the competition from this farmer based co-operative. It is not anticipated that this will create negative effects. With respect to women, they will feel the same impact as men.

Project Continuity

The Co-operative is fully responsible for staffing and running the project. It will bear the administrative costs. Due to the expected growth in membership (already indicated by the initial high level of growth), it is anticipated that the Co-op will be able to raise sufficient capital from its resources for its share of the capital.

Project Potential

Given similar marketing problems which exist (eg see this year's Ein Sinyeh project and last year's Deir Sharaf project), the demand for replication, it is anticipated, will be high. The availability

of capital is the major constraint.

Project Constraints

None are foreseen at this time.

Project Summary

1) Development --Yes

2) Training -- No

3) Poorer Elements -- Yes

4) Self-sufficiency --Yes

5) Self-help/complement local efforts --Yes

IV. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project. Technically, the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule - Phase I only

First, is the purchase of the equipment. This the Cooperative management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this process will take three months to a year to obtain delivery of all material. Second, is adding staff, a matter of a very short time. ANERA will not be officially involved in this part of the project. Third, is the installation of the afore-described units and the start of operation. Again, ANERA will not

be officially involved in this aspect of the operation.

Technical Considerations

Technical expertise sufficient to implement the project is available on the West Bank. If expertise is not available in the Jenin Region, it will be brought in by the Co-operative.

Procurement Requirements

Below please find a list of the equipment to be procured under this project.

1) A ground scale (weigh bridge)
   40,000 Kgs. capacity

   Costs $ 45,000

2) Box-saw-plant
   yearly production capacity
   ca 3,000,000 Boxes

   Costs $ 30,000

3) Cooling Units
   15,000 - 20,000 ton capacity

   Costs $120,000

4) Electric Generator
   250 Kw

   Costs $ 50,000

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The Co-op will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

Personnel are locally available as noted above. Once all aspects

of Phase I are operative, circa 30 people may be employed, depending on demand and season. Phase II would require added personnel, circa 20.

V. PROJECT EVALUATION

A. The project may be measured against the following:

1. In May 1979, during a visit to Amman, the Executive Committee of the Jenin Regional Marketing Cooperative obtained authority to sign and seal all papers and certificates for farmers exporting via the Jordan bridge. Previously, the responsibility lay with the Chamber of Commerce and the agricultural agent, a much more cumbersome process. Benefits are:

   a) the farmer does not used to travel to Amman (or send someone on his behalf to obtain the necessary documents);
   b) damage due to export delay will be curtailed
   c) the marketing process may be better organized for the benefit of the farmer;
   d) the value of regional co-operatives was further emphasized

2. Reduction to the farmers of the cost of weighing, packing, grading, and transportation.

3. Reduction of the negative role of commission-agents.

4. Creating new marketing outlets via food processing and opening new geographical markets.

B. Excluding administrative and material costs, the financial breakdown is as follows:

		US $
1.	Land and building (estimation)	255,000
2.	Ground-scale (weigh bridge)	45,000
3.	Saw-mill for boxes	30,000
4.	Cooling unit	120,000
5.	Electric generator	50,000
	Total	500,000

VI. PROJECT FUNDING -CAPITAL COSTS - PHASE I

Jenin Co-operative	$ 350,000
ANERA	150,000
Total	$ 500,000
Grant request from AID	$150,000

Title: NABLUS REGIONAL AGRICULTURAL CO-OPERATIVE LAND RECLAMATION AND MECHANIZED UNIT

I. INTRODUCTION

At one level, the purpose of this grant/project would be to provide partial funding for a machinery unit to open new land and to improve marginally productive land. At another level, the purpose is to enhance the incomes of two groups by improving the productivity of part of their land currently under cultivation and bringing more land into production via reclamation. Another intended effect is to encourage some farmers who would otherwise leave, to remain on their farms by providing more and improved land for them to cultivate. Added food production for local consumption and export would also be an effect.

This project is direcly comparable to last year's project in Tarqumiya and this year's proposed projects in the Hebron region.

The beneficiary target groups are two. First, 200 members (expected to increase to 1000 in two years) of the Nablus Cooperative from the Nablus Region would be one target group. They would receive the services as well as enjoy the benefits of a strengthened cooperative. Second, around 11,000 non-member farmers in the Nablus Region would be able to employ the services of the Cooperative. It is projected that circa 2000 dunums (10 dunums = 1 hectare) would be reclaimed each year.

The Cooperative's contribution towards the project would constitute 52% of the total capital cost; ANERA would contribute 48%.

The Nablus Region is located to the North of Jerusalem and Ramallah and to the south of Jenin.

ANERA's official relationship to the project would last one year. The Cooperative then would continue on its own indefinately. It intends to set aside funds regularly so as to be able to replace equipment as needed.

II. PROJECT DESIGN

Statement of Problem(s)

To put the proposed project in comparative perspective, the Table (1) below indicates the size and population of selected Regions in the West Bank.

Table No. 1: West Bank Area and Population

Region	Population (Estimated)	Area (Dunums)
Nablus	150,000	665,000
Tulkarm	100,000	775,000
Jenin	100,000	1,000,000
Total	350,000	2,440,000
Hebron	250,000	1,000,000

More specifically, taking the Nablus Region alone, the general picture is as follows in Table No. 2:

Nablus Region

Table No.2: Area and Population (excl. the City of Nablus)

	Population	No. of Villages	Total Area (Dunums)	Reclamable Area
Nablus Ease		32	438,886	282,911
Nablus West		21	183,648	81,056
Total	80,000	53	623,000	364,000

The problem addressed in the proposal involves low- or non-productivity of two categories of land which results in the deprivation of income for the farmers who cultivate this land. The two categories of land are (1) that which is currently tilled, but is of low productivity due to improper slopes, rockiness, and erosion, that which also requires crop substitution, and that which needs the services of tractors rather than animal power, and (2) that which is currently uncultivable due to rocks and slopes.

The inability of the farmers to improve the productivity of their land without mechanized land reclamation efforts results in a low agricultural per capita income, ie. $ 270.

This low income level, aside from the pure humanitarian concern it involves for the needy, results in the emigration of manpower from the region and deprives the region of surplus capital for self-generated development. The non- or low-productivity of

potentially more productive land also hinders the farmer in his/her ability to meet the needs of the local and export markets.

Another problem is the comparatively low level of agricultural machinery extant in the Nablus region. A comparative picture is as follows, in Table No. 3:

Table No. 3: Agricultural Machinery in Nablus Area compared with other West Bank Regions

Regions	Buildozer	Tractors	Equipment	No. of Owner Farmers (1)
1) Nablus Area				
Nablus		119	250	117
Tulkarm		105	498	187
Jenin	10	309	916	301
Sub-total:	10	533	1664	605
2) Other West Bank				
Hebron	15	332	826	332
Ramallah		157	387	157
Ghor Area	3	138	884	135
Sub-total:	18	627	2097	624
Grand Total:	28	1160	3761	1229

(1) please note that some owners are farmers. Others are entrepreneurs who hire out tractor services.

Final Goals

The Nablus Cooperative intends to have two separate functions:

1. Agricultural machinery unit for land reclamation.

2. District supply center stocking fertilizers, sprays, small machinery, (pruning equipment, small sprayers, etc.).

ANERA via this proposed project/grant would be involved solely in the machinery unit. The cooperative's machinery unit is designed to achieve two goals:

1) to allow the members of the Cooperative to reclaim marginal currently unproductive land, and

2) to serve as regional machinery unit for all the farmers in the Region.

Given the size (see below) of the proposed unit, it is expected that farmers will be able to reclaim or service 2-3000 dunums per year using its machinery. The average annual need for land reclamation in the Nablus region is estimated at 2000 dunums per year. Currently, no land reclamation services are available in the area. Consequently, the demands for the services of the unit will be substantial.

Land use (and non use) in the Nablus Region is as follows:

Table No. 4: Agricultural Cultivation in Nablus Area

	Cultivated Area (Dunums)	Fruit Trees	Olives	Dry-land Crops	Reclaimable Area
Nablus East	156,000	8,000	75,000	70,000	282,911
Nablus West	103,000	22,000	44,000	26,000	81,056
Total	259,000	30,000	119,000	96,000	364,000

In the cultivated area, bulldozer service for the most part is not required. In this area, the tractor services would be needed for land improvement. It is in the reclaimable area where the bulldozers are required.

The direct effects of the proposed project would be an expected increased in the cultivated land, an enhancement of the productivity of already cultivated land, and as a consequence of the above, an increase in per capita agricultiral income. Table (5) gives an indication of the effect of the peoject on cultivated land and income.

Table No. 5: Estimated Effect of Land reclamation on Agricultural Per Capita Income

	Current		Change	Increased
Total Population	80,000			
Cultivated area (dunums)	259,000	+	2,000	261,000
Dunums Per capita	3.24	+	0.03	3.27
Income per capita US $	$270(1)	+	$3	$273

(1) Income of one dunum in Nablus is about IL 2000. Exchange rate: US $1 = IL.24.

In sum, with the aforementioned unit, the Co-op will be able to provide land reclamation and improvement services to its members and non-member patrons. This is a service the Co-op will provide indefinitely, setting aside funds for equipment replacement as needed. Consequently, year by year additional land will be reclaimed and improved which, in turn, will lead to improved income year by year for the 1000 Co-op members and the other non-members farmers. In addition, incrementally one will observe the

improvement of agricultural production in the area served by the Co-op.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff hired, and the agricultural machine unit made an operating division of the Regional Cooperative. The Cooperative will then operate the unit indefinately.

III. PROJECT OVERVIEW AND STRATEGY

In the mid 1960's, a plan to strengthen agricultural cooperatives was devised. The basic thrust to the plan was to liquidate small weak cooperatives and gather the membership in potentially stronger regional co-operatives. This plan is part of the Tarqumiya, Dura, and Halhul proposals of this year and last.

With respect to the northern half of the West Bank, the plan includes two Agricultural Co-operatives/Mechanized Units per region, ie. two in each of the Nablus, Tulkarm and Jenin Regions. (see Table 1) and two in the Ramallah/Jericho area. Because each of the units (co-ops) is larger than those of the Hebron region, they will require more machinery and higher start-up costs.

In addition, this proposed Nablus Regional Co-op project would be serviced by a pilot agricultural revolving loan fund, in the same pattern as the Tarqumiya Mechanized Unit/Pilot Revolving Loan Fund (please see following proposal).

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. On a specific level, one might predict that the Co-op's agricultural machine unit might put individual entrepreneurs out of business. This is not the case according to numerous observers of the area as well as the land reclamation requirements/demands noted above. There exists sufficient work for all.

The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is best stated as a slight boost in a process that has already commenced. This is the mechanization/modernization of agriculture. The farmers definitely appreciate the value of appropriate agricultural machinery, and realize this will have an impact on their lives, a positive one in their minds.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, ie., the continued operation of the machanized agricultural unit, is assured in three ways. First

the Co-op will be covering all administrative costs. Second, the co-op will be paid for the services rendered. Third, the Co-op will set aside an adequate portion of its income from the unit for necessary replacement of equipment. Technically, the equipment is not difficult to operate and repair. Sufficient skilled operators exist in the West Bank. Major repair facilities are being developed under another ANERA/AID grant (FY 77, $50,000) at the Al-Bir Society, Jericho. Major repairs can be executed in Nablus as well.

For a financial analysis, see below.

Project Potential

From a technical viewpoint, this project could be replicated by any medium- to large sized cooperative. From a demand standpoint, observers (including ANERA) note that a high proportion of the farmers wish to improve and reclaim land. Those entrepreneurs with equipment work continually in the West Bank: the demand is high.

The major constraint to replication is the availability of capital. If this constraint could be surmounted, the project could be replicated.

Projects Constraints

None are foreseen at this time.

Projects Summary

(1) Development -- Yes

(2) Training -- No

(3) Poorer elements -- Yes

(4) Self-sufficiency -- Yes

(5) Self-help/complement local efforts -- Yes.

IV. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreenebt if the military government to the project. Technically, the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Cooperative Management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are available, this phase will take three months to a year to obtain delivery of all material. The second phase is hiring a staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the operation of the unit which will continue indefinitely. Again, ANERA will not be officially involved in this phase.

Technical Considerations

As noted, this project is designed to help the Nablus Regional Cooperative establish an agricultural equipment and services

unit. All the machinery to be purchased is relatively commonplace. Many West Bankers are familiar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below please find a list of the machinery and equipment to be procured under this project.

Table No. 6: Procurement Requirement

	Machinery/Equipment	No.	$ Costs/Estimates
1)	Large Bulldozer (D9L)	1	100,000
2)	Small bulldozer (955H)	1	90,000
3)	Crop-field tractors	4	64,000
4)	Orchard Tractors	4	76,000
5)	Shovel tractor	1	20,000
6)	Equipment for tractors(40 items)		40,000
	Total		390,000

The project also includes the purchase of land and construction of a building @ $30,000.

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The cooperative will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Cooperative will provide its own personnel for the unit as follows:

Table No. 7: Personnel Requirements

Personnel	IL Monthly Salary
1) 1 Manager (Agronomist)	IL 5,000
2) 1 Accountant	5,000
3) 1 Watchman	3,000
4) 11 Drivers	44,000
Total	57,000

V. PROJECT EVALUATION

The project/grant may be evaluated against the following considerations.

1) Estimated tangible benefits may be:

   (a) Yearly incremental increase in the cultivated land in the region of 2000 dunums, see above.

   (b) An increase in personal income in the area, see above.

2) Estimated intangible social benefits may be:

   (a) An increase in agricultural mechanization.

   (b) A step towards agricultural modernization.

   (c) Opening new employment possibilities for the increasing population.

3) The projected financial picture for the project, ie. financial analysis, is as follows:

Table No. 8: Capital Costs

	US $
1) Land and building	30,000
2) Machinery and equipment	390,000
Total	420,000

Table No. 9: Operation Costs

	US $
1) Fuel & Oil	30,000
2) Administration	28,000
3) Depreciation	39,000
+ 10%	9,700
Total	106,700

Table No. 10: Project Income

	Operation Period			Income per hour	Annual Income
	Months	Days	Hours	in/ IL.	In/US $
2 Bulldozers	6	30	12	IL 600	$ 54,000
9 Tractors	7	30	10	IL 1286	$112,525
Total					116,525

Table No. 11: Benefit Costs Analysis

Total Income	$ 166,525
Total Costs	104,900
Benefits/Costs/Ratio	1,588

This table indicates a Benefit/Cost ratio of (1.60). A ratio of (1.00) of a marginal project would be acceptable only if social benefits were to justify the project, since such projects are co-operative projects and their profits are supposed to be marginal. The (1.60) rate allows for capital accumulation for equipment replacement and functional expansion of the Cooperative.

VI. PROJECT FUNDING

A. Finance Placing/One Year Only

1.	Machinery	$390,000
2.	Land and Building	30,000
	Subtotal-Capital Costs	$420,000
3.	Operation Costs	106,700
	Total Costs	526,700

B. Project Finance

1)	Nablus Regional Co-op	$276,700
2)	ANERA/AID Grant	250,000
	Total	526,700

ANERA grant request from AID: $250,000

Title: NABLUS PILOT AGRICULTURAL REVOLVING LOAN FUND

This proposed project is identical to the Tarqumiya Olive Co-operative Pilot Agricultural Loan Fund except for being attached to the Nablus Regional Agricultural Co-operative, the subject of the immediately preceding project. Consequently, the discussion presented there will not be repeated here. Suffice it to say that the need and rationale are the same as are the technical details of loan structure (60% of the costs of the loan activity from the farmer's resources, 40% of the costs from the revolving loan fund), co-op participation, and control over the loans.

As with the Tarqumiya pilot project, there may be a need to repeat the Nablus Pilot Project. In that the latter covers more land and more farmers, the need may even be greater.

Given the above this write-up may move directly to Project Funding.

Project Funding

- 200 loans @ $500	$100,000

Project Finance

ANERA/AID Grant	$100,000

ANERA grant request from AID: $100,000

Title: NABLUS DISTRICT"UNION" OF VILLAGE ELECTRIFICATION COOPERATIVES -- EXPANSION FOR INDUSTRIALIZATION

I. INTRODUCTION

The purpose of this project/grant would be to aid the "Union"[1] in its plan to expand its provision of electricy to its members. Currently,the Union, due to its limited generating capacity, only provides electricity in the evening and night. The Union's plan is to more than double its generating capacity so that electricity may be provided during the day. The primary motive for this expansion is to allow for the establishment of village industries and, in turn, the creation of jobs. A beneficial side effect will be the daylight provision of electricity to domestic households, clinics, schools and shops.

The beneficiary target group will be the 1900 Co-op/Union member families in seven villages. With the added capacity, it is expected that more families, shops, and small industries will become members.

The project will take place in Nablus District. ANERA would be involved in the project for circa one year, ie., while it is implemented. The Union would continue on its own after this period. It is estimated that the life of the generators is ten years.

The Union's contribution towards the capital costs of the

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(1) The"Union" is in the process of being formed. The Coops already exist.

project would be 43%; ANERA would also contribute 57%.

II. PROJECT DESIGN

Statement of Problem(s)

The problem at its most basic level is the same as stated in the proposal agricultural co-op projects (land reclamation) and the Hebron District electrification projects, namely, very low per capita income. In the Nablus region it was found that agricultural per capita income is circa $270. In the Hebron and Nablus land reclamation projects, the problem was addressed by expanding the cultivable land through reclamation. In this proposed project and in the Hebron District electrification projects, the problem of low income would be addressed by the creation of new jobs via the establishment of village industries. As is well established, the rural areas are suffering considerable demographic changes as individuals and families leave the areas to seek employment. By creating more employment opportunities, this demographic change would be milder.

The people involved in this proposed are indicated in Tables No. 1 and No. 2 below.

Table No. 1 General Information

Village	Km from Nablus City	Population
1) Asira Al-Qiblia	13 south west Nablus	1500
2) Bazaria	17 north west Nablus	1500
3) Barta'a	27 south west Jenin	2000
4) Burqin	5 west Jenin	5000
5) Asira Al-Shamlia	10 north Nablus	6000

6)	Nabi Ilias	10	Qalqilia	500
7)	Attil	12 north	Tulkarm	7000
	Total:			23,500

Table No. 2: Cooperative Information

Cooperative		No. of Members	% of Representation of popul.	Registr. Year
1)	Asira Al-Qiblia	120	80%	1979
2)	Bazaria	96	70%	1979
3)	Barta'a	193	100%	1979
4)	Burqin	329	70%	1973
5)	Asira Al-Shamalia	442	75%	1962
6)	Nabi Ilias	50	100%	1977
7)	Attil	675	100%	1963
		1909		

In that the establishment of industry and the attendant creation of new jobs is the primary goal of the project, the beneficiary group is much greater than the current 1900 member families of the cooperatives/Union.

In sum, the lack of daytime electricity -- the immediate problem to be addressed by this project -- creates negative pressures on income levels, employment opportunities, potential social uses of power, and demographic movement.

Final Goals

The immediate goal of the Union's project is to provide daytime electric power for industrial use. The existing net which supplies only nighttime electricity consists of eight generators

with a total capacity of 826 KW. In order to provide daytime electricity, the net will be increased by 1215 KW for a total of 2041 KW. The current and proposed distribution of the generation capacity would be as in Tables No. 3 and No. 4.

Table No. 3 Current Electrical Service

	Power of Generators	Year of Installation	Length of Net
1) Asira Al-Qiblia	44 KW	1978	2 Km
2) Bazaria	57	1978	3
3) Barta'a	--		7
4) Burqin	96		17
5) Asira Al-Shamalia	110	1972	22
	150	1975	
6) Nabi Ilias	44		2
7) Attil	125	1972	25
	200	1977	
	826		

Table No. 4: Proposed Project

	Building	Costs $	Generators	Costs $	Net Ext.	Costs $
1) Asira Al-Qiblia	exists	--	100 KW	27,000 +	1 Km	3,000
2) Bazaria	"	--	100 KW	27,000 +	½ Km	2,000
3) Barta'a	"	--	100 KW	27,000 +	1 Km	3,000
4) Burqin	5m x 5m	20,000	250 KW	60,000 +	2 Km	5,000
5) Asira Al-Shamalia	6m x 7m	30,000	300 KW	75,000	Replacement	25,000
6) Nabi Ilias	exists	--	65 KW	20,000 +	--	--

7) Attil	5m x 10m	40,000	300 KW	75,000	--	--
Total		90,000	1215 KW	311,000		38,000

After the implementation of the Project, it is estimated that in circa 12 months, at least 130 workshops will be established in the area, see table 5-A for their distribution. The 130 workshops, in turn, would create an estimated 1250 new jobs in the region served by the Union.

Table No. 5-A: Industries proposed to be established as a result of the Project and No. of Workers

	Sewing Workshops	Carpentries	Black-smiths	Mixer of Animal Feed	Building Material
1) Asira Al-Qiblia	2	2	1	1	3
2) Bazaria	2	2	1	1	3
3) Barta'a	2	2	1	1	3
4) Burqin	2	2	4	1	6
5) Asira Al-Shamalia	6	6	5	2	8
6) Nabi Ilias	2	1	1	-	1
7) Attil	15	10	10	4	16
Total	31	25	23	10	40

Table No. 5-B: No. of Work opportunities created above:

1) Asira Al-Qiblia	40	12	6	3	20
2) Bazaria	40	12	6	3	20
3) Barta'a	40	12	6	3	20
4) Burqin	40	12	24	3	40

5)	Asira Al-Shamalia	120	36	30	6	60
6)	Nabi Ilias	40	6	6	-	8
7)	Attil	300	60	60	12	150
	Total	620	160	138	30	318

Social benefits would also result from the proposed project. Grocery and meat shops would acquire refrigerators; schools, clinics, welfare societies, and a limited number of farms would also benefit as described in the Hebron District proposed projects. The projected figures are in Tables No. 6 and No. 7.

Table No. 6: No. of Shops needing refrigerators

		Grocery Shops	Meat Shops
1)	Asira Al-Qiblia	5	3
2)	Bazaria	4	2
3)	Barta'a	6	4
4)	Burqin	30	5
5)	Asira Al-Shamalia	45	6
6)	Nabi Ilias	2	1
7)	Attil	70	10

Table No. 7: Social bodies require day-electric supply

		Schools	Clinics	Societies	Farms
1)	Asira Al-Qiblia	3	1	2	-
2)	Bazaria	2	1	-	-
3)	Burqin	4	1	1	6

4)	Barta'a	2	-	2	-
5)	Asira Al-Shamalia	4	1	4	2
6)	Nabi Ilias	1	-	-	-
7)	Attil	5	1	4	4

The generators have an estimated life of ten years. After this period, they could be renewed or the area might be included in a Nablus network.

Project Activity Targets

Within one year of the project being funded, ANERA's official role in the project will be terminated. The equipment will have been purchased, the staff expanded, and the net expanded. The Union will then operate the improved network on its own.

III. PROJECT OVERVIEW

Project Development and Strategy

Between 1962 and 1979, the Union's cooperatives were established and began operating. Seeing the demand and need for daytime electricity, leading cooperative members initiated the proposed project in coordination with the Nablus District Cooperative Department.

As noted above, the Co-ops are in the process of forming a Union which will be able to provide the overall supervisory and training services in the pattern of the Hebron District's Union.

Project Impact

Predicting possible positive or negative effects of this project on other than the target groups is problematic. On a very

general level, with success the project will contribute to the economic welfare of the immediate community and the West Bank as a whole. By making employment more attractive in the area, demographic changes in the region will be milder. The impact of the project on women is essentially neutral. They will benefit from the overall project in the same way men will. The impact on values and traditions is stated as a slight boost in a process of modernization that has already commenced.

Project Continuity

ANERA will be officially involved in this project for only one year, the period during which the equipment will be purchased.

The project's continuity, ie., the continued operation of the network, is assured in the following ways. First, the Union will be covering all administrative costs. Second, the Union will be paid for the provision of electrical power. Technically, the equipment is not difficult to operate and repair. The co-ops are currently operating the existing network quite efficiently. The Hebron Union of University Graduates' Polytechnic, partially funded by an ANERA/AID grant last year and a second grant being proposed this year, will be training more qualified technicians to operate and repair such electrical networks.

Project Potential

From a technical viewpoint, this project could be replicated by another Union or a Municipality. From a demand standpoint, observers (including ANERA) note that a high proportion of non-

electrified villages wish to be included in a network. However, as with many other institutions in the Occupied Territories, sufficient investment capital is lacking due to current constraints. Replication, thus, is problematic. With outside help, however, replication is possible.

Project Summary

1) Development -- Yes

2) Training -- No

3) Poorer elements --Yes

4) Self-sufficiency -- Yes

5) Self-help/complement local efforts -- Yes

IV. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The only constraint under this heading is obtaining the agreement of the military government to the project. Technically the project has already been recommended by the Cooperative Department. All that remains is the military government's approval which hopefully will be forthcoming in a short period, a few weeks or a month. The seven cooperatives and the forming "Union" have already applied for approval.

Implementation Plan and Schedule

The first phase is the purchase of the equipment. This the Union management will do; ANERA staff will oversee this to insure that proper bidding procedures are observed. Once the funds are

available, this phase will take three months to a year to obtain delivery of all material. The second phase is adding staff, a matter of a very short time. ANERA will not be officially involved in this phase. The third phase is the installation of the new generators and extension of the delivery network. Again, ANERA will not be officially involved in this phase.

Techical Considerations

As noted, this project is designed to help the Union expand its electrical network. All the equipment to be purchased is relatively commonplace. Many West Bankers are familar with its operation and repair. As such, technical considerations are not a negative constraint.

Procurement Requirements

Below, please find a list of the generators and other equipment:

Table No. 8 Proposed Project

	Building	Costs $	Generators	Costs $	Net Ext.(1)	Costs $
1) Asira Al-Qiblia	exists	-	100 KW	27,000	+ 1 Km	3,000
2) Bazaria	"	-	100 KW	27,000	+ ½Km	2,000
3) Barta'a	"	-	100 KW	27,000	+ 1 Km	3,000
4) Burqin	5m x 5m	20,000	250 KW	60,000	+ 2 Km	5,000
5) Asira Al-Shamalia	6m x 7m	30,000	300 KW	75,000	Replace-ment	25,000

6) Nabi Ilias exists		-	65 KW	20,000	-	-
7) Attil	5m x 10m	40,000	300 KW	75,000	-	-
		90,000	1215 KW	311,000		38,000

(1) This includes wire, poles, switching equipment, etc.

The material will be purchased in the West Bank and Israel. Delivery will occur from one month to around nine months after the project grant is finalized. The Union will make the purchases; ANERA will insure that proper bidding methods are followed where necessary.

Personnel Requirements

No ANERA personnel will be directly involved in the project. The Cooperative will provide its own personnel for the unit as follows:

1) One Engineer - for the whole program
2) Seven Accountants, one for each unit
3) Seven Generator Operators, one for each unit.

The Engineer will be in charge of the whole program. He will also be in charge of training the operators, if they do not already have sufficient expertise.

V. PROJECT EVALUATION

The project may be evaluated against the following projections:

1) Social Benefits

(a) An estimated 130 workshops would be established in the area

during the first year of operation.

(b) An estimated 1250 new jobs would be created in the area as a consequence of (a).

(c) The emigration of skilled manpower would decline.

(d) As a result of (a) and (b) the level of domestic demand would be increased and would positively affect the whole economic activity in the area.

(e) Per capita income would improve as a consequence of the creation of new jobs.

(f) Domestic standard of living would be enhanced by introduction of electric equipment such as refrigerators, washing machines, and heaters.

2) Tangible Benefits

Electrical power supply would be increased from 826 KW to 2041 KW as indicated by the following Table No. 9.

Table No. 9: Comparison of Total Power

Cooperative	Existing Power/KW	Number of Generators	Proposed Generator Power/KW
1. Asira Al-Qiblia	44	1	100
2. Bazaria	57	1	100
3. Barta'a	--	--	100
4. Burqin	96	1	250
5. Asira Al-Shumalia	260	2	300
6. Nabi Ilias	44	1	65
7. Attil	325	2	300
Subtotals	826		1215
Grand Total			2041

VI. PROJECT FUNDING

Financial Plan/One Year Only

The capital costs of this project appear as follows:

		Cost
I.	Generators	311,000
II.	Net Extension	38,000
III.	Buildings	90,000
	Total	439,000

Project Finance

I.	The Union	189,000
II.	ANERA/AID Grant	250,000
	Total	439,000

ANERA grant request from AID: 250,000.

Title: HEBRON UNION OF UNIVERSITY GRADUATES POLYTECHNIC-SECOND SUBGRANT.

Last year, ANERA applied for and received funds for a subgrant to the Hebron Union of University Graduates (hereafter referred to as the "Union") to help it establish a two year post high school polytechnic. In that proposal (attached as part of this proposal), ANERA indicated that a second subgrant would be proposed, depending on progress. At this time, ANERA judges that sufficient progress has been made by the Union to warrant a second subgrant.

Last year's proposal is still quite valid. Consequently, it is being attached to this proposal which will primarily be a progress report.

Introduction

The Polytechnic opened its doors in November, 1978. The Jordanian Ministry of Education recognized it as a Polytechnic Institute in 1977, and the Israeli Military Government recognized it in 1979.

Curriculum

The syllabuses and curricula of the Amman Polytechnic which in turn were prepared by the Jordan Ministry of Education, were adopted by the Union's Polytechnic.

Students

In the first year, this fledgling school received 147 student applications. Seventy-seven were rejected for academic reasons.

Seventy were admitted of which six withdrew. The Polytechnic anticipates added applications next year of which 100 would be admitted. The polytechnic's aim is to have 200 in its student body, ie 100 in each year.

As to course spread, the pattern is as follows:

Civil Engineering	Architecture	Mechanical Engineering	Electrical Engineering	Total
17	17	14	16	64

Facilities

Partial facilities were available in the Union's converted high school. Sufficient laboratory facilities were not available in these buildings during the initial year. Consequently, the Union obtained the permission of local vocational schools to use their laboratories. Those co-operating with the new Polytechnic were: Industrial Islamic School (ANERA/AID grantee), Salesian Technical School (ANERA/AID grantee), and Lutheran Vocational School.

Procurement

- Furniture was locally made.
- Physics laboratory with a small workshop is basically complete
- Electrical engineering laboratory is 90% complete for first year students. Equipment for second year students is on order.
- Civil engineering laboratory equipment is largely in place. Equipment for concrete and asphalt labs were locally made. Surveying equipment was partially, locally made and partially ordered from abroad.
- Engineering laboratory equipment is on order.
- Mechnical engineering equipment is yet to be ordered

Staff

As of April, 1979 the staffing pattern of the Polytechnic was as follows:

	Full Time	Part Time
Dean	1	-
Accountant	1	-
Secretary	1	-
Academic Instructors	3	1
Technical Instructors	6	1
Maintenance	3	-

The Polytechnic will need by next year 14 full-time (or the equivalent) technical and academic instructors to fill out the entire course structure. It is the judgement of the Polytechnic's administration that the quality of the instructors is adequate to meet the Jordanian standards. However, it will continue in its attempt to upgrade the staff. Currently, the Union is funding two students abroad (one in Germany and one in Egypt) who are committed to teach at the Polytechnic for two years per scholarship year abroad. Another instructor who recently joined the staff, just returned from Britain where he completed his M.S. in physics on a British Council scholarship.

The Union's greatest difficulty was to secure the services of a senior, qualified engineer as Dean. The primary problem was its inability to compete with the salaries offered in Jordan and the oil rich countries. However, in March 1979 the Union did hire a superbly qualified candidate. He received his engineering degree in 1961 from Ohio State University, subsequently was Assistant

Manager of the Zirqa Jordan refinery and Chief Engineer of a refinery in Abu Dhabi. Desiring to return to the West Bank, he took this position with the Polytechnic.

Funding

Funding sources are as outlined in the original proposal with the addition of a grant from the Hebron Municipality.

Project Funding

Please see the original proposal.

Grant request from AID: $175,000.

Title: HEBRON UNION OF UNIVERSITY GRADUATES POLYTECHNIC

1. Introduction

The purpose of this grant/project would be to establish a post high school two year polytechnic which will graduate engineering assistants in the fields of electrical engineering, civil engineering, architecture, surveying and eventually mechanical engineering. Currently, no post high school polytechnic exists in the West Bank or Gaza. The Union of Engineers of Jordan, West Bank Division, in a recently issued study has strongly recommended the establishment of such a polytechnic. In addition, the mayors of the West Bank and Gaza have frequently expressed to ANERA officials the great need for establishing such polytechnics in the regions.

The intended beneficiary target groups would be: (1) the potential graduates at the rate of ~~120~~ 200 per year once the institution is operating; (2) the population of Gaza and West Bank who would benefit from the services provided by this group of graduates through their public or private employment.

The school will be established in Hebron, West Bank. It will be an ongoing institution under the auspices of the Hebron Union of University Graduates (Union).

As to sharing the total costs of this project, the situation is somewhat complex. Details are presented later in the proposal. In summary, the Union will be totally responsible for the operating budget. Of the non-operating budget (land, building, equipment, books), ANERA/AID would grant circa

one sixth of the total this year. If the project proves to be viable, as is expected, ANERA would propose in the second year a second grant constituting one sixth of the total non-operating budget and would consider a similar grant in the third year.

2. Project Design

Statement of Problem(s)

The basic problem is the non-existence of a post high school polytechnic in the West Bank and Gaza. In the judgment of a study prepared for the Jordan Union of Engineers, West Bank Branch, this gap needs to be filled as soon as possible. The study also indicates that vocational training in general is inadequate for the needs of the area (ANERA with its private funds grants has been quite active in this field as it has been with the ANERA/AID grants).

The vocational training picture, in outline, appears as follows.

A. Government Efforts

(These courses follow the Jordanian curricula.)

1. Secondary Agriculture Education
2. Secondary Commercial Education
3. Secondary Industrial Education

The Engineers' Union comments on the government's efforts are as follows:

> "The number of trainees in vocational schools is small when compared with their number in ordinary academic schools. The following statistics show the number of students who sit for the secondary general examination - vocational - in its three sections during the past five years. It indicates that the number of trainees in the vocational section does

not exceed 3% of the academic section's statistics and this is a low average which needs remedy by establishing vocational schools in different branches for boys and girls:

Year	Applicants				Successful candidates			
	Commercial	Agriculture	Industrial	Total	Com.	Agr.	Ind.	Total
1972	113	32	148	293	49	22	61	132
1973	112	33	137	282	52	28	88	168
1974	72	24	132	228	38	19	86	143
1975	59	16	209	284	32	14	146	196
1976	57	21	163	241	37	18	114	169"

There are a number of other efforts of significance in the West Bank and Gaza

B. Other Efforts

1. Lutheran World Federation operates a vocational training center with a three year cycle for post elementary students.

2. The UNRWA Men's Vocational Training Centre at Kalandia runs two cycles, one for post elementary students and the second for post-secondary students, each cycle being two years. (The UNRWA Women's Training Centre, Ramallah, also offers a limited range of vocational courses at the secondary and post-secondary levels.)

3. Industrial Islamic Orphanage in Jerusalem offers vocational training courses at the preparatory and secondary levels.

4. The Industrial Secondary School in Kalandia, is operated by the Arab Orphan Committee. Its graduates sit for the government vocational diploma.

5. Salesian Industrial School in Bethlehem is run by an Italian religious order. Its graduates sit for the government vocational diploma.

6. The Al-Bir Society operates a vocational training centre in Jericho for needy and orphaned boys from the West Bank and Gaza Strip who have completed the elementary cycle of general education.

7. The East Jerusalem YMCA also operates a vocational training center in Jericho for boys and young men, pitched at the preparatory and secondary levels.

8. The Near East Council of Churches (NECC) runs vocational training centres in Gaza Town, to train young men and women from the Gaza Strip for jobs in the local labor market. Courses are variously at the preparatory, secondary and adult education levels.

9. A number of smaller courses, responsive to the demands of the market, are run by various charitable or foreign societies and the Social Welfare Department. Examples are the East Jerusalem YWCA vocational training program and the Arab Development Society vocational training school in Jericho.

C. The Israeli Military Occupation Government.

The military government has established the following:

1. Secondary Industrial School in Nablus. The students sit for the government vocational diploma.

2. "... vocational centers for 3 to 12 month cycles, for the purpose of providing workmen for Israeli projects..."

(Previously cited study)

As will be noted from the above outline, the vocational training schools now operating in the region only cover the younger students

those at the junior and senior high school levels, except for the post-secondary courses at UNRWA's training centers noted above. The existing courses are essentially for practical vocational training. Thus there exists a very significant gap in the post high school level of technical training. No local institutions provide polytechnic education which would include a significant portion of theory and sophistication.

The polytechnic here proposed is directly comparable to the polytechnic now functioning in Markke, a suburb of Amman. All reports indicate this has been a very successful effort. The school is well run; the students find employment easily; and the larger society benefits.

The beneficiaries, as noted above, are two. First the potential graduates at a rate of ~~120~~ 100 per year would benefit from their increased education, their ability to obtain better employment, and their potentially greater capacity to earn wages. Second, the society at large would benefit. For example, the mayors of the various cities and small towns report to ANERA that the municipalities are highly understaffed with respect to engineers and engineer assistants. Similarly, engineers, architects, etc. in the private sector report that they would hire more people with technical qualifications if such individuals were available. The lack of trained individuals, they report, causes severe constraints in the economic activity of the private sector. Equally, the previously cited study strongly indicates that

the West Bank needs such polytechnic institutions. In sum, the beneficiaries are a narrow group (the potential graduates) and a wide group (the general society).

Final Goals

The goal of the project is to establish a two year post high school polytechnic under the auspices of the aforementioned Union. The school will begin with sections in electrical engineering, civil engineering, architecture and surveying. Mechanical engineering will be added at a later stage. Because of high demand in the region, a language laboratory and language courses will also be provided in the institute.

The Union will use a building which it owns and which was previously a high school operated under its auspices. The high school was closed last year so that this project could be implemented. The Union is in the process of adding a second story to the building so that sufficient space will be available for all the activities of the polytechnic.

The objectives of the Union's polytechnic as stated by the Union are:

"a. Preparing assistants in the various engineering fields, both in theory and practice, by providing them with theoretical and practical skills and experience that comprise semi-professional techniques between that of the technical and the professional specialized engineers.

b. Developing the interest and promoting the appreciation of the applicants to the profession they opt for, and also to train them to respect the manual work and to establish and promote a communal spirit and group work amongst the students."

The beneficiaries, as noted above, are the potential graduates and the society at large.

Project Activity Dates

The polytechnic plans to open its doors to new students either in spring or fall 1979. During the first year it would register circa ~~120~~ 100 students as it would in the second year.

The staffing of the school will be completed as the number of students warrant. The equipping of the polytechnic, the major capital expenditure yet to be met, will take place over a three to four year period, depending on the availability of funds. As noted above, ANERA anticipates proposing a second and possibly a third grant for the development of the school.

3. Project Overview

Project Development

The Union was founded in 1953 by university graduates from Hebron. Over the years, the Union has developed a large program which it successfully maintains. In outline form, it is composed of the following:

1. Public Lending Library (5000 books) yearly.
2. Loans to 175 Undergraduates from the Hebron Governorate at universities all over the world.
3. A secondary school in Hebron preparing students for the general school certificate (Tawjehia). (Now closed, to be replaced by the polytechnic.)
4. Publication of the history of Palestinian cities, towns and villages.

5. The Union lecture hall and theatre.
6. Guest House composed of 11 single rooms with a dining room and a sitting hall.
7. The Amman branch of the Union is preparing to build a hostel for undergraduates from the Hebron Governorate admitted to the University of Jordan.

Recognizing the need in the West Bank for polytechnic schools, the administration proceeded to research the subject. It collected the curricula of similar schools in Syria and Iraq and discussed with officials of those countries their developing plans for setting up a similar institution in the West Bank. Of more immediate concern, the Union administration held in-depth discussions with officials in Jordan from whom they received considerable encouragement. They are also in close contact with the aforementioned Union of Engineers in the development of the school. The latter indicated that graduates of the Hebron polytechnic would be accepted as members of the Union of Engineers.

Equally important, the members of the Union recognize the great need for such a polytechnic. The have contributed to date 100,000 JD ($300,000) for the capital expenditures, a sum which the Union now has in the bank.

The Mayor of Hebron (himself a member of the Union) has been heavily involved in the development of the project and strongly subscribes to it as do other mayors in the region.

The Union also states that it would be prepared to turn over the polytechnic to a representative authority once one is established on the West Bank. Thus, this polytechnic could be the basis for a government-run school such as the one in Markke, Jordan.

Project Impact

Other than what is described above, no other significant impact, negative or positive, is foreseen for this project. With respect to women, the project is essentially neutral.

Project Continuity

The financial viability of this project is assured by the sources of finance the Union is capable of bringing to the polytechnic. The operating costs will be met solely from the Union's own resources. The needed non-operating capital will be met partially from the Union's sources, and, it is proposed, partially by an ANERA/AID grant. The latter will constitute circa one sixth of the non-operating capital.

A second and third grant would be considered, each of a similar magnitude to the first, if the project proves viable as is expected. For financial details, please see below.

Project Potential

The project is definitely replicable. Other major towns in the West Bank may decide to set up similar or complementary polytechnics, if they establish the need. Based solely on local resources, it is doubtful that replication is realizable. Outside resources would be needed for non-

re-occurring costs.

Project Constraints

None are foreseen at this time.

Project Summary - Five AID Criteria for MESRF Grants

(1) Developmental -- Yes. See above.

(2) Training -- Yes. See above.

(3) Poorer elements -- Yes. The students would be ordinary members of society, especially from the poorer classes.

(4) Self-sufficiency -- Yes. See above.

(5) Self-help/Complement local efforts -- Yes, See above and budget below.

4. Project Implementation

Pre-Implementation Conditions

The Union has applied for a license to open the polytechnic. The Jordan Government officials have indicated their positive attitude and the Jordan Union of Engineers has stated the graduates would be recognized. The Military Government, it is expected, will grant permission to open the school shortly.

Implementation Plan and Schedule

The polytechnic would open its door to first year students in the spring or fall of 1979. The second entering class would start in the spring or fall of 1980. The first students would graduate two years after they enter if they successfully complete the courses and pass the exams.

The school building is nearing completion. ANERA has not officially

been involved in this stage of the project. The purchase of equipment will commence once the building is complete, in a matter of a few months. According to the decisions of the polytechnic's administration and teachers, a schedule for purchasing equipment over a three to four year period (depending on the availability of funds) will be drawn up and executed. Depending on whether this grant will be repeated, ANERA would be officially involved in the equipment purchasing (through the provision of funds and assuring bidding procedures are properly followed where necessary) for one to three years. In terms of this grant proposal solely, ANERA would be officially involved for one year only.

Technical Considerations

The Union is quite competent to establish and maintain this polytechnic. From a management standpoint, the Union has run projects of a similar complexity. The technical staff will be responsible for the equipment and is quite competent to handle it.

Procurement Requirements

The following types of equipment will be purchased:

School Furniture

Books and Equipment for

a) civil engineering section
b) electrical engineering section
c) architecture section
d) surveying section
e) language laboratory

The Union's officials will purchase the material locally or from abroad through a local import agent. ANERA would insure that proper bidding

procedures are observed where necessary.

Personnel Requirements

The following will be hired by the Union:

Administration

1 Principal (a qualified engineer)
1 Secretary
1 Accountant
1 Storekeeper
1 Typist/Secretary
1 Janitor
1 Guard

Teaching Staff

8 Qualified Engineers
2 Science/Theory Professors
2 Instructors
2 Laboratory Technicians/Instructors

Adequately trained personnel exist in the West Bank and Gaza. No special training will be necessary.

5. Project Evaluation

Final Goals

Evaluation of this project would be relatively straightforward.

(1) One would need to establish that the equipment was purchased, is in place, and being utilized.

(2) At the end of the second year of the project, the number of actual graduates could be established. After four or five years, the success of the graduates in finding gainful employment could be established.

(3) After two to four years, one could interview competent engineers who associate with the new graduates in order to establish their quality in their professions.

6. Project Funding

(I) Non-operating Budget (Three - Four Years)

	Extant (Already Invested)	
A.	Land	40,000 JD
B.	Building	17,000 JD
C.	Furniture	5,000 JD
D.	Books and Visual Aids	15,000 JD
	Subtotal	77,000 JD
	Needed	
E.	Building Construction	25,000 JD
F.	Furniture	10,000 JD
G.	Teaching Aids	7,200 JD
	Equipment and Books	
H.	Electrical Engineering	50,000 JD
I.	Civil Engineering	50,000 JD
J.	Architecture	50,000 JD
K.	Surveying	50,000 JD
L.	Language Laboratory	50,000 JD
	Subtotal	292,200 JD
Total		369,200 JD

(II) Operating Expenses - One Year

Administrative Staff	8,400 JD
Teaching Staff	19,800 JD
Services	1,200 JD
Maintenance	3,600 JD
	31,800 JD

(III) Hebron Union of University Graduates Income - 1977

Jordan Government	6,000 JD
Charitable Societies Union	4,000 JD
Hebronite Donations	40,000 JD
Total	50,000 JD

(This income is repeated yearly.)

(IV) Hebron Union of University Graduates: Cash in Bank

Spring 1977 100,000 JD

(This is partially derived from a special appeal.)

(V) Project Funding

A. Operating Budget -- Yearly

Union's Resources 31,800 JD

B. Non-operating Budget (3 - 4 years)

ANERA/AID - See qualification above 50,000 to 150,000 JD (over 3 years)

Union's Resources (77,000 JD already invested) 219,000 JD (over 3 years)

Total 269,000 to 369,000 JD

(ANERA/AID Grant would be used towards items (I) F through L.)

Grant request from AID FY78: 50,000 JD ($150,000)

Grant request from AID FY79: $175,000

Title: GAZA MUNICIPAL RAINWATER CONSERVATION PROJECT

I. Introduction

During the rainy season, rainwater collects in two major catchment areas in Gaza town. Because the water stands for long periods, considerable damage to property and severe dislocation of road and foot traffic is experienced. This problem has increased in recent years due to the paving of roads and construction of buildings resulting in less land area being available for water absorption. It is anticipated that this problem will increase with further city development in the coming years.

The Gaza Municipality is addressing the aforedescribed problem in two ways. Gaza city is topographically split between two areas by its central ridge. The western slope falls away to the sea, the eastern slope inland. Heavy but seasonal rainwater either runs off into the sea or accumulates in lower-lying areas, depending upon which side of the central ridge it falls. On the seaward side, the Municipality is nearing completion of a major storm sewer project whereby rainwater is drained to the sea.

On the landward side (east of the central ridge), a different type of project is being designed which this proposal would partially fund. Rather than just channel the standing water to the sea, the Municipality proposes to address another problem as well; the chronic, growing shortage of sweet water in Gaza City and its near environs. Via storm sewers and open channels, the excess rainwater would be channeled to the lowest lying section of Gaza

where an artificial lake would be constructed. The water there collected would be purified (as needed) and then injected into the ground and used directly for irrigation purposes. By injecting water into the ground, the water table would be raised, reducing the salt content of existing wells which are subject to contamination by sea-water, when the water table falls. Conversely, the provision of some irrigation water will allow farmers to pump less from their current wells which, in turn, will positively affect the ground water tables for the region. In sum a net increase in sweet water for irrigation and drinking purposes would result.

Project beneficiaries would be the residents of Gaza City, neighboring Jabalia, and farmers in a 5 to 7 kilometer radius from the artificial lake.

The project is scheduled for three one year phases. The first and most expensive (circa $ 3,000,000) would be the construction of the lake, attendant installations, and laying storm sewer pipes. The next two phases at around $ 1,500,000 each, would be the extension of the storm sewers to other areas of the catchment basins.

This proposal addresses only phase one. (Other aspects of the total project may be included in future proposals. The Municipality is well aware that no funding guarantees are being made.) For phase one, on the basis of this proposal, the Municipality would fund circa 90% from its sources and ANERA/AID 10%.

II. Project Design

Statement of Problem

Major problems faced by the Municipality and population of Gaza City are:

1. Dislocation and impeding of heavy urban road traffic, damage to municipal and private property and hazard to health caused by long-standing water following heavy seasonal rainfall.

2. Preventing waste of this potentially precious fresh rain water resource which can reduce salt-level of well-water used for drinking and irrigation by raising groundwater table level and preventing infiltration of sea-water as the water table level falls to its seasonal low.

These problems affect the entire population of the town, circa 130,000, plus the population of the neighboring area, circa 50,000.

Two kinds of wells are also affected by the encroaching salt water, drinking water wells and irrigation wells. The ten municipal drinking water wells are the most affected due to their proximity to the sea. The 35 irrigation wells are also affected; they often nearly dry up during the summer and fall. The wells average 19 to 20 meters in depth.

Final Goals

One final goal of the project is injection of fresh, standing seasonal rainwater excess into the earth of the Gaza City eastern catchment area for purposes of:

1. Eliminating standing water-damage to municipal and private property, impediment to and dislocation of heavy urban road traffic caused by formation of seasonal pools in low-lying areas of the city.

2. Injection of now-wasted rainwater into Gaza soil to recharge the underground watertable, protecting, improving and expanding fresh water reserves for domestic and irrigation utilization.

Correspondingly, a portion of the water in the artificial lake would also be used directly for irrigation. This would lessen the pumping from irrigation wells which in turn would raise the water table.

The effect of saving the now wasted fresh rainwater would be to provide added water for both irrigation and drinking purposes.

The catchment area from which the rainwater would be drawn is 13,100,000 square meters. The water, on an average year, to be drawn from this area currently runs at 1,450,000 cubic meters. When the city reaches the forcasted development, the quantity of water will reach 2,150,000 cubic meters.

Project Activity Targets

A. Phase I - The Subject of this proposal

Phase I, lasting around one year, would involve the construction of an 86-dunum artificial lake in the Sheikh Radwan District on the north-eastern edge of Gaza City, bordering Jabaliya. The lake would have a capacity of 350,000 cubic meters. (It is noted that the lake would not hold the entire run off. In between rains, the water would be injected into the ground and/or used by farmers for irrigation purposes.) In addition, around 6.5 kilometers of storm sewers and channels would be laid. These would be in the Port Said, Talateni, and El-Basaten quarters of Gaza City. Finally, purification

equipment and injection wells would be installed.

B. Phase II - One Year

During Phase II, storm sewers would be laid in the Salah El-Din and I.P.C. quarters and connected to the major channel flowing to the lake.

C. Phase III - One Year

Storm sewers would be laid in El-Shejaih and El-Tofah quarters and connected to sewers laid in Phases I and II.

III. Project Overview

Project Development

The project was initiated by Gaza Municipality. Engineering Services Israel Ltd., a Tel Aviv consulting firm, has completed the technical feasibility study due for delivery to the Municipality in July 1979. That same firm will presumably undertake phase one, construction of the artificial lake, late this year or early next. The forthcoming Feasibility Study will thereafter serve as the prime source of project data.

Project Impact

Other than what has been described, it is not anticipated that the project will have any impact. With respect to women, the impact is the same as on men.

Project Continuity

This Gaza Municipality project will draw on normal sources of internal, Israeli and outside funding for its completion . External funding from Arab oil-exporting countries, the Islamic

Conference, has increased greatly within the past year and promises to continue this upward trend. ANERA funding, in part, of Phase One construction will underline the projects importance in the eyes of potential external funding sources, and, as with past projects, facilitate accumulation of funds required to complete the project.

Staffing and permanent operational responsibility for the project will remain with the Municipality. They will employ qualified staff who will become part of the permanent municipal pay-roll. No ANERA responsibility for operation is required.

Project Potential

Given sufficient capital and a similar topography in the Gaza Strip, the project could be replicated.

Project Constraints

None are foreseen, at this time.

Project Summary - Five AID Criteria

(1) Developmental - Yes
(2) Training - No
(3) Poor elements - Yes
(4) Self-sufficiency - Yes
(5) Self-help/complement local efforts - Yes

IV. Project Implementation

Pre-Implementation Conditions

The Municipality has already secured permission to undertake the project. ANERA has informed the Gaza Military Governor and the Ministry of Labor and Special Affairs of its desire to participate in the project and expects permission to be forthcoming

in a short period.

Implementation Plan and Schedule

Project Implementation is scheduled for three years, one year to complete each of three phases:

1. Phase one begins with earth excavation work for the artificial lake (86 dunums with a water retention capacity of 350,000 cubic meters); this includes walling and flooring the lake-bed, completion of underground absorption wells and construction of a pumping station nearby to deliver fresh water for drinking or irrigation purposes through a phase-one network of 6.5 kilometers of pipe. In addition, storm sewers and channels will be built as described above.
2. Phases Two and Three complete expansion of a further 8.5 kilometer pipe network, 3.5 kilometers within the Phase Two second year and 5 kilometers in the Phase Three final year of project construction.

Technical Considerations

As noted above, the technical aspects of the project are initially being handled by Engineering Services Israel, Ltd. Their feasibility study, when delivered to the Gaza Municipality and ANERA, will be shared with AID, if requested.

Procurement Requirements

The excavation, pipes, and channel--the great majority of the cost - can be locally purchased. The pump station and purification facility would be available from Israel or imported.

Personnel Requirements

All personnel will be provided by the Municipality.

V. Project Evaluation

Economic and Social Benefits

1. Waste of extensive seasonal rainwater will end, and storage for use in a chronically dry, densely populated urban area will begin in a proposed artificial lake.

2. Nearby citrus orchards, which provide major income for the Strip, will have access to new irrigation water from the artificial lake.

3. Water infiltrated downward through soil layers will recharge watertable, raising the level and thereby increasing underground water reserves.

4. The rising water-table level will protect the quality of underground water reserves, preventing contamination by sea water which is unavoidable during the seasonal low level of water table without infiltrated fresh rainwater.

5. The artificial lake site is bordered on the Gaze city side by an especially crowded re-settlement area for refugees. The new lake will provide an important recreation facility as well as a more pleasant appearance to the neighborhood.

6. Eliminating major urban traffic dislocation, damage to municipal and private property and potential health hazard from longstanding accumulations of seasonal heavy rainfall in low-lying densely populated residential and business sections of the eastern catchment area.

The project may be evaluated vis-a-vis the six above points.

VI. Project Funding- Capital Costs

Phase I	$3,000,000
Phase II	1,500,000
Phase III	1,500,000
Total	$6,000,000

ANERA proposes a subgrant of $250,000 towards Phase I. The Municipality, as stated above, has or will secure major funds from the Arab-oil exporting countries and the Islamic Conference.

ANERA request from AID: $250,000.

Title: RAMALLAH MUNICIPAL INSTITUTE OF TECHNOLOGY

Added and more complete data on this project will be available in July.

Much of the discussion for the Hebron Union of University Graduates Polytechnic, found above, is relevant for this project eg. establishing need et al.

Starting in 1972, the Ramallah Municipality conceived of a project to establish an Institute of Technology. To this aim, it acquired the "Abu Raya" building which was originally intended to be a secondary school. The building is 90% finished. With slight adjustments and completion, it would serve adequately as an Institute of Technology.

The school would be a two year post high school institute and would aim at an enrollment of circa 200. Courses offered would be:

1) Dental Technician courses
2) Pharmceutical Technician courses
3) Hospital Labratory Technician courses
4) Engineering Assistant courses complementary to the Hebron Polytechnic
5) Electronic (radio/tv) technician courses

Total capital costs for the Institute would be similar to those of the Hebron Polytechnic, ie. circa $1,000,000. ANERA's subgrant would be used for the purpose of purchasing teaching equipment.

Educational planners, including the most experienced vocational expert on the West Bank, support the project. The project also enjoys

the support of the American Ramallah Federation. Hopefully, the Military Government's approval will be forthcoming in a short while.

Like the Hebron project, this subgrant may be repeated.

ANERA grant request from AID: $125,000

Title: HEBRON PATIENT'S FRIEND SOCIETY HOSPITAL

Added and more complete data on this project will be available in July.

The need for hospital beds in the Hebron District is acute. Serving circa 200,000 people is a single 80 bed government hospital which is both very overcrowded and quite inferior in standards.

Given the above figures, the number of beds per thousand people is 0.4 as compared to 1.3 in the whole West Bank, 1.1 in Jordan, 2.2 in Egypt, 9.1 in Britain, and 7.0 in Israel.

In order to meet the extreme need for hospital beds, the Patients's Friend Society proposes to build a 200 bed hospital. The Society was formed in 1976 and now numbers over 1000 contributing members. (All people of Hebron District may use the projected Hospital). One year ago, with the help of the Mayor, the Society obtained a plot of land where the hospital will be built. In six months, it proposes to begin construction of the hospitals' central core which will house X-ray equipment, Laboratories, and other services. In subsequent phases, wings attached to the central core will be built. These will house the various bed units.

Personnel to staff such a hospital are always the critical element for success ful operation in a developing context. In this case, CRS/AID are funding B.Sc nurses training at Bethlehem University and ANERA/AID are funding the Arab College of Nursing's

B.Sc course. In addition, the Society is sending selected candidates to Europe for training as hospital technicians.

The total project, by the time of its completion, will cost in the neighborhood of $5,000,000. Funding for the construction of the central core building has already been obtained. And hard promises for further funding have been received. This proposed subgrant/project would be for the purchase of X-ray equipment for the central core.

The project has been approved by West Bank health planning authorities. Approval of the Military Government will hopefully be forthcoming shortly. It is conceivable that the Society may request further funding for future phases of this project.

ANERA grant request from AID: $300,000

III. FINANCIAL PLAN

A. Gross Budget

1. Subgrants	$ 2,865,000
2. Administration/Project Development	166,400
Total	$ 3,031,400

B. ANERA/AID Administration/Project Development Budget Breakdown -

Twelve Months

Salaries	63,000
Payroll Taxes & Employee Benefits	7,100
Professional and Contract Service	7,000
Occupancy	10,000
Office Supplies & Equipment	1,500
Telephone & Telegraph	2,500
Postage, Shipping, & Storage	400
Travel	13,000
Development Research	20,000
Miscellaneous	2,000
TOTAL DIRECT EXPENSES	126,500
Washington Indirect	39,900
TOTAL	166,400

C. Notes to Administration/Project Development Budget

1. The funds granted last year should last through November 1979.

2. The above budget assumes the addition of another employee in ANERA's Jerusalem office. His/her functions would be focused on grant implementation.

3. The addition last year (December) of a local employee (economics Ph.D.) was quite helpful to program development.

4. Circa 65% of the above would be expended by the East Jerusalem office.

D. Three quarters of the subgrant expenditures($2,150,000) should be available to ANERA upon the opening of the Federal Reserve Letter of Credit in favor of ANERA, that is on October 30, 1979. This requirement is made necessary by the nature of the subgrants because the large majority are for the provision of equipment. This equipment must be purchased at the initial stages of each of the projects in order for them to be properly initiated and executed.

E. Waiver

To repeat, ANERA hereby requests as suggested by AID, a waiver so that this proposed grant, which exceeds $250,000 would fall under the rules of grants of less than $250,000.

IV. BUDGET SUMMARY

A. Subgrants

1. Halhul Agricultural Cooperative - Land Reclamation $ 150,000

2. Dura Agricultural Cooperative - Land Reclamation and Machinery Unit $ 150,000

3. Tarqumiya Olive Cooperative - Pilot Agricultural Revolving Loan Fund $ 100,000

4. Hebron/Bethlehem Regional Plant Nursery $ 150,000

5. Bethlehem/Hebron Agricultural Services Cooperatives Projects $ 100,000

6. Hebron District Union of Village Electrification Cooperatives - Expansion for Industrialization $ 250,000

7. Dura Municipal Electrification Project - Expansion for Industrialization $ 100,000

8. Jalazon Bakery Cooperative $ 45,000

9. Jericho Marketing Cooperative - Vegetable Nursery Project $ 70,000

10. Ein Sinyeh Olive Cooperative - Grading, Quality Control and Bottling Project. $ 150,000

11. Jenin Agricultural Marketing Cooperative $ 150,000

12. Nablus Regional Agricultural Cooperative - Land Reclamation and Machinery Unit $ 250,000

13. Nablus Pilot Agricultural Revolving Loan Fund $ 100,000

14. Nablus District Union of Village Electrification Cooperatives - Expansion for Industrialization $ 250,000

15. Hebron Union of University Graduates Polytechnic - Second Grant $ 175,000

16. Gaza Municipal Rainwater Conservation Project $ 250,000

17. Ramallah Municipal Vocational/Polytechnic Institute $ 125,000

18. Hebron Patient's Friend Society District Hospital $ 300,000

	Subtotal	$ 2,865,000
B.	Administration	166,400
	TOTAL	$ 3,031,400

ANERA

MIDDLE EAST OFFICE:
29 Nablus Road
P.O. Box 19982
East Jerusalem

HEADQUARTERS:
900 Woodward Building
733 15th Street, N.W.
Washington, D.C. 20005

IOM J-52-79
26 June 1979

To : Peter Gubser

From : Henry Selz

Subject: Last two FY-79 Projects:
(1) Ramallah Municipal Higher Vocational Training Institute
(2) Patients' Friend Society Hebron District Hospital

Dear Peter,

Although the Ramallah Municipality has thus far failed to appoint an independent group to assume responsibility for the planned Vocational Training Institute, this will be done later in the year. It has been difficult to get anyone concerned to focus on the project at length these past months, but the building is ready for adaptation and completion and the American Ramallah Federation has assured the Municipality that they will participate in both establishment and operating cost assistance. The amount they can be realistically counted on to provide remains lower than the Municipality expects, but it appears sure that East Bank/Gulf funds will become available for this and other ANERA assisted projects in unprecedented quantity once agreement among the Arab donors and the GOI (through Jordan) is worked out. The money is there on paper, and we should get it off paper and to work later this year. . . The Ramallah Vocational Training Institute will be developed within the over-all West Bank/Gaza Str contex Dr. Sweilem confirms.

The Patients' Friend Society Hebron District Hospital proposal is now moving ahead rapidly. The detailed architects' plan is nearing completion. A West Bank-wide committee has been formed to realize the plan effectively; Dr. Yasir Obeid is working with them. His involvement, of course, insures maximum support from East Bank and other Arab world funding sources. . . You will remember that the Hebron Polytechnic received by far the highest level of local contribution support of any project we've been involved in to date; we believe the Patients Friend Society project will benefit similarly from Hebronites at home and abroad. This local enthusiasm for projects of public interest attracts outside support as indeed it should.

Dr. Sweilem is preparing an analysis of the FY-79 program in full, charting its evolution from previous AID/ANERA programs. We hope to get this off by person-post on Friday, June 29th.

Best,

Henry

Henry Selz

Encl: Dr. Sweilem's
(1) Ramallah Vocational Training
(2) Patients Friends Hospital/Hebron

AMERICAN NEAR EAST REFUGEE AID

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PATIENTS' FRIEND SOCIETY

HEBRON DISTRICT HOSPITAL

1. INTRODUCTION

The Patients' Friend Society has on the top of its long-term program the establishment of community hospital of the size of 200 beds. The city of Hebron is the only city on the West Bank served only by one hospital - i.e. the Government Hospital of 100 beds. The Hebron District has a population of 200,000. It needs around 1000 beds more. The proposed hospital will begin with 200 beds and will be expanded later to 300 beds. Planned are four single storey buildings backing onto a common central yard for the following divisions:

Surgery, Internal,Pediatric and Neurology

The first stage of the project will be the ground floor which will contain a large modern X-Ray Unit, laboratories, pathology, emergency room, outpatient station, kitchen, laundry and central heating. The second phase will be the establishment of the hospital bedrooms in the first and second floors with all necessary equipment. ANERA will be financing the X-Ray Unit as a contribution to the first implementation stage.

The beneficiaries of this project are the inhabitants of Hebron City and the surrounding area, with a population of 200,000 people. The proposed hospital will be built on Fersh Al-Hawah near Hebron, where the society already purchased 17 dunums of land for the hospital.

2. PROJECT DESIGN

Statement of Problem(s)

The population of Hebron area is around 200,000. The area is served by the Government Hospital "Amira Alia Hospital" of 100 beds and very limited facilities and manpower. Hebron area is the only area in the West Bank served by a single hospital. Compared with the nearb Bethlehem, Hebron is suffering of the shortage of many important medical facilities and sections like: ENT, Orthopedy, Ophthalmy, Neurosurgery, Urology, Skin and others.

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Table No. 1. West Bank Hospitals

Area	No. of Hospitals	No. of Beds	Population (est.)
Bethlehem	6	647	50,000
Hebron	1	100	200,000
Jericho	1	50	10,000
Jerusalem/Ramallah	8	636	300,000
Nablus/Jenin/Tulkarm	9	469	300,000
Total WB	25	1602 *	860,000

* note p. 8

The table indicates that the 25% of West Bank population in the Hebron area are served by one hospital of 100 beds.

Another problem is that the Hebron Area is short in other medical sections like children, orthopaedy, mental and maternity. The existing 100 beds in Hebron are general beds: Medical, Surgery, Paediatric, Gynae and obstetrics. The following table will indicate the distribution of medical section on the West Bank.

Table No. 2. Distribution of Hospital Beds according to Medical Section over West Bank Areas

	General	Children	Ophthalmic	Maternity	Orthopaedic	Ment
Bethlehem	124	52	-	16	60	375
Hebron	100	-	-	-	-	-
Jericho	50	-	-	-	-	-
Jerusalem	405	-	82	26	-	-
Ramallah	125	-	-	-	-	-
Nablus	287	-	-	-	-	-
Jenin	70	-	-	-	-	-
Tulkarm	106	-	-	6	-	-

Source - UNRWA Statistics - 1976

Table No. 2 indicates the shortage of essential medical services in Hebron district. The area is served just by 100 general beds which means not more than 7.9% of existing West Bank hospital general beds, or 5.2% of total West Bank hospital beds. This level is very low, especially if we consider a normal standard of one bed for every 200 persons.* These figures show a very low level if compared to Bethlehem figures, where the population is much smaller, (see Table No. 1).

Hebron district is also short in many other medical services as well. The area is badly in need of the following:

1) A modern equipped laboratory

2) A large X-Ray Unit

3) A Blood Bank

4) A large and complete hospital

5) A centre for aged and disabled persons

Final Goals

The Patients' Friend Society aims at improving the standard of health services in Hebron District. The society established a modern small laboratory, a small X-Ray unit, a blood bank and supported the Government hospital by an artificial kidney. Furthermore, the society made its X-Ray unit available anytime for the radiologist of the government hospital for barium photos which can't be done in the government hospital due to the old fashioned X-Ray machine. To approach its final goals the society aims at the establishment of:

1) A large hospital of 300 beds which includes the most important sect

   a) Internal
   b) Pediatric
   c) Neurology
   d) Surgery

* or 5 per 1000

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2) A centre for aged, crippled and disabled persons.

The proposed hospital will be on the size of 200 beds in its first stage; it will be expanded in future according to the availability of the necessary funds.

One of the major goals of the project is to bring into the area various specialists in most branches of medicine the district is currently short of. These specialists will be able to work in the district as soon as a modern hospital in the area is available where they will be able to exercise their practices.

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3. PROJECT OVERVIEW

Project Development

On June 14, 1976 the Mayor of Hebron invited the medical professionals to a general discussion about the standard of medical services in Hebron area.

The idea of establishing the Patients' Friend Society came out in that general meeting with the Mayor. The GOI approved the society under registration No. 25/78. One of the long-term goals was the establishment of a district hospital to meet the needs of the area. The hospital will be established in several stages according to the availability of funds. The first stage was proposed at 200 beds. Recently it has been agreed on to be a 200 beds hospital consisting of four major sections: Internal, Pediatric, Neurology and Surgery. The society requested ANERA to contribute to the hospita costs by financing the X-Ray unit of the hospital.

Project Continuity

ANERA will participate in the financial support of the hospital. Administrative and technical responsibility will be carried on by the society. The society has paid confidence to five sources of funding:

1 - Rich Hebronites in the West Bank, in Jordan and in the Gulf States.

2 - Funding official resources in Jordan.

3 - Gulf States.

4 - The Islamic conference.

5 - The ANERA

As to the administrative and technical responsibilities, the soci will provide the technical know-how, supervise the hospital, staff it and assure its effective continuity from its very beginning.

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4. PROJECT IMPLEMENTATION

Pre-implementation Conditions

The approval of projects by the GOI is a pre-implementation condition. The society believes the GOI approval was automatically acquired, since the GOI has recognized the society and approved its projects plan which also include this project.

Implementation Plan and Schedule

The project will be implemented through two phases. The first phase is the purchase of land, the construction of a road and a wall around the plot of land, then the construction of ground-floor buildings which will be designed to contain the X-Ray Unit, the outpatient station, the emergency room, the laboratories, the pathology kitchen, laundry and central heating. The plot of land, 17 dunums has already been purchased. The first phase may take around 2 - 3 years and may cost ca six million dollars. ANERA will be financing the X-Ray unit as a contribution to the first phase. The second phase will be construction of the first and second floors which will contain the bedrooms of the different hospital sections and furnishing these floors with the necessary equipment. This second phase will take around 1 - 2 years and may cost ca nine million dollars.

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Technical Considerations

The Patients' Friend Society is successfully operating a modern medical center in the city of Hebron. The center includes the following services:

1) Central Laboratory, established on 23.1.1978. Up to the end of 1978 ca 10,000 laboratory tests were done for 2421 patients. The Unit has recently acquired an (S.M.A/12) Electronic Apparatus for blood testing.

2) X-Ray Unit, started 25.2.1978. Up to the end of 1978, one thousand photos for 835 patients have been taken.

The society had supported the Government hospital in Hebron with an artificial kidney.

This indicates the ability of the society to supervise a modern hospital acquired with modern apparatus. The leading persons of the society are experienced Physicians and Specialists having own clinics and/or supervise special sections in the hospitals of other areas as we

Procurement Requirements

As to the X-Ray Unit to which costs ANERA will contribute, the equipment needed are the following:

1) General purpose X-Ray machine with image intensifier, TV-viewer and two tube systems for contrast X-Rays of the Gastro-intestinal tract, arteriography etc... with mobile tabulator and rapid sequence changer.
2) Simple X-Ray machine for plane chest, KVB, Bone I.V.P. etc...
3) Portable X-Ray machine
4) Office viewers load appr. glasses, automatic developer etc...

Total estimated costs of the X-Ray Unit will be around $300,000

Project Finance	US $
First phase estimated Costs	6,000,000
Patients Friends Society	5,700,000
ANERA grant for X-Ray Unit	300,000

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Note: Dr. Sweilem found more beds than GOI statistics indicate. In the proposal write up, on the basis of GOI statistics, I found 1.3 beds per thousand for the West Bank. Dr. Sweilem's figures indicate 1.86 beds per thousand.

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RAMALLAH MUNICIPALITY
HIGHER VOCATIONAL TRAINING INSTITUTE

1. INTRODUCTION

The Ramallah Municipality plans since several years the establishme of a higher poly-technical vocational training institute. The idea behind the project arose as a result of the urgent need for this service in the West Bank and Gaza Strip. The West Bank/Gaza Strip area remains short of this service since over 30 years - i.e. since the Arab-Israeli conflict of 1948. Both Israel and the East Bank have already made major progress in this direction, although the East Bank is far behind the Israeli standard of vocational trainin Only the West Bank and Gaza Strip remained behind others in the area.

The main idea of the project is to fill the gap between technical executives and simple manpower. This gap is considered by experts as a big one. West Bank experts see the solution of filling the ga in two successive measures:

1) Establishment of industrial secondary schools with a wide curricula of scientific subjects: physics, chemistry, mathemat Geometry, English Language etc.

   These schools will be preparing students for a higher vocationa training.

2) As a next step modern equipped higher vocational training institutes will graduate the necessary skills for industry, health, agriculture, communication etc.

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West Bank experts emphasize the necessity of establishment of five such institutes on the West Bank, so as to distribute them among regions as follows:

1) In Nablus for the north region of Nablus, Tulkarm and Jenin;
2) In Ramallah for the middle West Bank;
3) In Jerusalem for Jerusalem/Jericho area;
4) In Hebron for the south region of Hebron/Bethlehem;
5) In Gaza for the Gaza Strip.

The Ramallah municipal vocational training institutes project is proposed to provide the following major courses:

1) Dental Assistants
2) Pharmaceutical Assistants
3) Laboratory Technicians
4) Engineering Assistants
5) Radio/TV Technicians

The beneficiaries of this project are two groups:

1) The industrial and health institutions which currently are short of trained manpower, like hospitals, pharmacies, pharmaceut industry, industry, electrical services etc.

2) Hundreds of the secondary school graduates who have excellent school results but can't continue their higher studies or find a job in the West Bank. The number of such secondary school graduates is around 8000 every year, only 2000 have the possibili to join universities abroad or find a suitable job.

The location of the project will be in the Ramallah city, presumably the Abu-Raya school building which has been already bought by the municipality for this purpose.

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The ANERA involvement in the project will be repeated through three years depending on the successful development of the project implementation.

2. PROJECT DESIGN

Statement of Problem(s)

The major problem which the project is proposed to ease is the chronical shortage in skilled manpower between design and execution of work, especially in industrial and health sectors. This gap exists between the engineer and the simple untrained worker or between the physician and the simple nurse. Engineers and doctors are much engaged in execution and conducting of work more than in designing and decision making - Intermediate senior staff is very limited in the West Bank due to the limited number of vocational training institutes on the one hand and to the massive migration of skilled labor on the other.

The existing institutions on the West Bank which corporate the vocational training activity are:

1) Syrian-German Orphanage school in Jerusalem(Schneller), 1860
2) Salesian Industrial School 1863
3) Lutheran International Union Industrial school in Jerusalem after 1956
4) UNRWA Training Center in Kalandia near Jerusalem
5) Industrial teaching programs in secondary schools which were introduced after 1954
6) Islamic Orphanage Industrial school in Jerusalem
7) Hebron Polytechnic institute which started this year with a [redacted] limited number of students and which was partly assisted by ANE

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At this level it is obvious that the standard of vocational trainin in the West Bank and Gaza Strip is very insufficient compared with the increasingly developing standard of the East Bank, and regardin the need for such services.

Another major problem in this regard is the low standard of technic teaching in preparatory and secondary schools which is in no accou a basis for technical jobs. In the West Bank there are around 8000 secondary school graduates every year. Only 2000 of them find jobs or places in West Bank universities and institutes. Vocationa training programs could prepare at least 2000 of these young men and women for suitable jobs in industry, trade, health and education and with tha solution of the shortage problem of technical skills could be at le partly solved.

Final Goals

The project aims at the establishment of a poly-technical vocationa training institute which will provide the following courses:

1) Dental Assistants course

2) Pharmaceutical Assistants course

3) Laboratory Technicians course

4) Engineering Assistants course

5) Radio/TV Technicians course.

The Engineering Assistants program will provide two-year courses in civil engineering, construction engineering, mechanical engineerin electro-technics and communication.

The project proposed final goal will be to fill the gap described above, as it is between workers and engineers or other similar executive of the same level. The graduates of the institute will b working in industry, health, education, communication and others. The municipalities, official institutions and public corporations and the private sector will be eager to engage the graduates since

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the need is usually big for them. Also agriculture may absorb a part of the graduates. Regarding education, excellent students may be trained further locally or abroad to serve as instructors in these institutes, training centers, industrial schools etc...

Project Activity Targets

The estimated number of secondary school graduates who remain in the West Bank every year without being able to get a job or attend a university, is around 1200 persons. These are the intended group which needs the training. The vocational training institutes of Hebron and Ramallah may absorb around 400 - 500 students a year which is around 40% of the demand for trained students in applied sciences.

The project capacity of training may be around 200 - 300 students a year. Every section of the institute may accept 25 - 30 students yearly.

The period of study is 6 semesters divided on 2 years. Total credit hours may reach 108 - 120.

3. PROJECT OVERVIEW

Project Development

The project was a proposal of the Ramallah Municipality in 1977. Since that time the Municipality was studying the feasibility of the project. Members of the Higher Educational Council of the West Bank were also recommending the project. Recently the Hebron Polytechnic institute moved ahead with the training. In the first (pilot) year around 60 students have been accepted as a first step. The Ramallah project will be similar in many aspects to the Hebron poly-technic. Both of them will apply East Bank curriculum of the Amman-Polytechnic Institute.

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Project Strategy

The project is part of a West Bank-Gaza Strip wide plan of a chain of vocational training institutes which will include one in Hebron for the southern district, one in Jerusalem for Jerusalem-Jericho area, one in Ramallah for the West Bank middle area and one in Nablus for the northern area. West Bank experts suggest a type of specialization in fields of studies between these institutions to be able to complement each other. Also a para-medical training institut in Al-Bireh where most of the para-medical subjects can be gathered in a central West Bank Vocational Training Institute, was proposed. This proposal, however, has not yet been put into effect.

The Hebron vocational polytechnic institute - to which costs ANERA was contributing by a considerable grant, is starting functioning this academic year 1979/80, with 60 students. This project is a major success in vocational poly-technical development on the West Bank. The Ramallah project is proposed to be on the same scale with some changes and emphasis on special subjects. Also in the Ramallah projected institute the East Bank curriculum formula will be adopted.

Project Continuity

The Municipal Council will be responsible for running the institute. They can recruit staff from among Palestinian professionals, but will hire foreign specialists if necessary.

After the ANERA grant is submitted to the Municipality, the municipal council will be responsible for further financing, for staffing and functioning of the institute.

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4. PROJECT IMPLEMENTATION

Pre-Implementation Conditions

The approval of the GOI is a pre-implementation condition. This approval should be obtained before implementation begins. Also an approval of the East Bank authorities is necessary, however, a routine.

Implementation Plan and Schedule

The first step towards implementation of the project has already been done. The Ramallah Municipality purchased in 1972 both land and skeleton building from Mr. Khalil Abu-Raya, on Plot No. 13 Quarter No. 13 Jaffa Road in Ramallah, at a cost of JD 25,000, which is much less than the market value. The building consists of three storeys and a basement area of the following dimensions:

1)	Basement	353 m^2
2)	Ground floor	657 m^2
3)	First floor	657 m^2
4)	Second floor	473 m^2

The second step will be to finish the skeleton building erected on 5,973 square meters. This step will take around 6 months and includes interior works, paving and equipment for play-ground, water and electric installations.

The third phase of the project will be to furnish the building with the necessary teaching and training equipment. Parallel to this the municipality will be recruiting staff members.

The fourth phase will be the starting of the teaching program and accepting students for the different courses. The curriculum of the Amman polytechnic institute will be adopted in this institute.

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A final step will be the further development of the program, introduction of additional training fields and the enlargement of the capacity of the institute.

The number of the students will depend on the successful achievement of other program parts, like staff members, equipment etc. It is, however, proposed to accept around 25 - 30 students for each course. This will make a number of around 200 students for the first year.

Procurement Requirements

See Attachment - Curriculum and Equipment Lists

Personnel Requirements

Number of Staff

	End of 1st Year	End of 2nd Year
1) Technical Director General	1	1
2) Teachers/Instructors	25	45
3) Administrative Staff	4	5
4) Workers	7	10
Sub-Total	37	61

5. PROJECT EVALUATION

1) As mentioned above, the final goal of the project is to help fill the gap between professional executives and workers by well trained technical assistants. This will help the proper function of economic and social corporations. An exact determination of the above mentioned gap as well as of social benefits is not approachab. but it is obvious that the need and demand for such graduates is bi Actually the graduates of vocational training Institutes are more needed than university graduates on the West Bank. Also their work efficiency is much higher because they are a link between workers and decision-makers.

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On developmental level these institutes create the professional manpower supply for all the sectors.

2) Cost Estimations

	$
1. Land and Building (Skeleton)	75,000
2. Completion of Building	200,000(1)
3. Equipment	325,000(1)
4. Administration	200,000(1)
Total	800,000(2)

3) Project Finance

Total Costs	$	800,000
Municipality of Ramallah	$	775,000
ANERA	$	125,000

(1) 1977 prices inflated by + 30% to estimate 1979 prices.

(2) Excl. Operation Costs other than salaries.

attached, polytechnic technical specification

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MUNICIPAL COUNCIL
RAMALLAH

دائرة بلدية رام الله

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

PHARMACY

Lab

Counter	250 cm. long
Pupils-place	A bench with drawers and cupboard 60 cm. per student
Writing-place	Enough for 3-4 students. peace for typewriter - file in a drawer.
Washing-place	This section must have a stainless steel top with suits and two washing suits (50 x 40 x 30 cm.) length 280 cm.
Boiling-place	Bench - top of formica place for 2 double cooking-plates + gas burner.
Evacuating system	Above this place there must be a (for vapour)
Laboratory benches	With places for drying cupboard.
Stove	Must have at least 2 cupboard with locks.

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MUNICIPAL COUNCIL
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Telephone 2436 P.O.B. 3

رقم المطابرة .....
التاريخ .....

Pharmacy - assistant

Theory:	Arabic	3 period a week
	Commercial General Knowledge	1 " "
	English	2 " "
	PE	2 " "
	Typing	3 " "
		11 periods a week
	Pharmaceutical periods	25
		36 periods a week

Pharmaceutical periods

Trade Theory In the pharmacy	2 p.
The law	2

The prescription

Latin and reading of prescription	1
Arithmetic, measurements	1
Signing and price calculations	3
	5

Chemistry	4
Traditional medicine	1
Modern medicine	4
"Nursing"equipment	1
Technical pharmacy	6
	25 periods a week

MUNICIPAL COUNCIL
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رقم المخابرة .....
التاريخ .....

WRITING PLACE

1 typewriter special model for labels
5 typewriter micro-elite
1 typewriter large types
5 rubberstamp-pads
5 rubberstamp with "Name of pharmacy"
1 rubberstamper with serial numbers automatically charging
1 dyno - marking tong
1 hole puncher
1 stapler
4 tapedispensers

STERILE-PLACE

1 scale 2.5 g. - 1 kg.
1 scale 50 mg 5 g double beam type
2 sets of weights
Assorted flasks.
1 lamp for checking of injection flasks.

COUNTER

1 cash register

WEIGHING-PLACE

2 scales 5g - 2kg
2 scales 2.5g - 1kg
5 scales 250mg - 50g (double beam type)
5 50mg - 5g (double beam type)
2 Counter scales 20g - 5kg
1 Counter scales 50g - 5kg

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MUNICIPAL COUNCIL
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دائرة بلدية رام الله

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تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Assorted sets of weights
Beakers with counter weights

ANALYTICAL-PLACE

1 analytical scale, direct reading
1 heating plate for melting point - tests
1 analytical set of reagents
1 microscope with lamp
1 calculator
1 burner - gas
1 spirit - burner
2 burettes (acid & alcohol)
1 burette stand with clamps

Assorted of eye droppers, flasks, test tubes etc.

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RAMALLAH

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2435 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Equipment-Pharmacy

1	scale 0.5 - 50kg with weights
1	scale 50mg - 5g
1	direct reading scale
1	distillation apparatus
1	heating cupboard with exhaust fan
1	water jet pump
2	double cooking plates
1	gas burner
1	electrical water bath
1	tablet machine (pill machine)
1	emultion pump
1	tube - closer
1	vacuum cleaner
2	percolators
1	timer clock
1	mile for suspension (salve machine)
1	tube filler
1	auto clave
2	vacuum flasks 1 litre
2	" " ½ "
1	bottle filles
5	spatulas with wooden handle 30cm.
5	" " " " 25 "
5	" " " " 18 "
2	Spatulas with stainless steel 30cm.
5	" " " " 25 "
5	" " " " 20 "
5	steel rods 30cm.
1	spoon 30 "
1	" 18 "
1	" with 28 "
5	" " 20 "
5	" " 15 "
5	spoons made of bone
5	pair of scissors
12	" " " 15cm.
1	thermometer 360 deg.
5	" 150 "
1	powder mixer with spheres
2	hand mixers
2	powder scissors
5	salve - plates, stainless steel
1	evaporating dish " " 40cm.
2	" " " " 30 "
5	" " " " 20 "
5	" " " " 15 "
12	" " " " 12 "
12	steel mortar with pestle 12 - 15cm.
1	funnel stainless steel 20cm.
1	" " " 15 "
1	" " " 13 "
2	" " " 9 "

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MUNICIPAL COUNCIL
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Reference .....
Date .....

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رقم المخابرة .....
التاريخ .....

2	mortars, parselin, rough with pestle						25cm.
5	"	"	"	"	"		17 "
55	"	"	"	"	"		15 "
5	"	"	"	"	"		13 "
5	"	"	"	"	"		6"
1	cooking pot with lid stainless steel						5.5 litres
1	"	"	"	"	"	"	4 "
1	"	"	"	"	"	"	3 "
1	"	"	"	"	"	"	2 "
1	"	"	"	"	"	"	1.5 "
1	"	"	"	"	"	"	1 "
120	powder trays for weighing metal or bone, assorted sizes						
10	trays for drying pills						
5	pill-trays, 60 pills with lid						
5	" " 120 " " "						
1	tablet counter						
5	erlenmeyer flasks (conical 1000ml.)						
6	"	"	"	"	500 "		
6	"	"	"	"	300 "		
20	"	"	"	"	250 "		
6	"	"	"	"	200 "		
6	"	"	"	"	100 "		
5	"	"	"	"	50 "		
2	beakers 1000ml.						
5	" 400 "						
5	" 250 "						
5	" 100 "						
5	" 50 "						
5	measuring flasks 1000ml.						
5	" " 500 "						
5	" " 100 "						
5	" " 50 "						
1	measuring cylinder 1000ml.						
1	" " 500 "						
2	" " 100 "						
2	" " 50 "						
2	" " 10 "						
5	spirit-burners						
10	burette-acid 50ml.						
10	" alkali 50ml.						
10	burette-stands with double clamps						
10	funnel 5cm. glass						
5	" 9 "						
2	" 4 "						
2	" 10 "						
2	flasks	2	1 dark				
2	"	3	"	"			
2	"	5	"	"			
2	"	2	L with glass topper				
2	"	3	"	"	"	"	
1	"	5	L	"	"	"	

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دائرة بلدية رام الله

Reference .....
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تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Dental-technician

Curriculum

1. **The anatomy of the teeth**

   A teeth, position, shape, name of different parts.
   Use of plaster, moldings.

2. **Material and Trade Theory**

   Plaster, prosthetic materials
   wax, metals etc.

3. **Apparatus and tools**

   Use and maintenance
   Electric machines
   Electric current
   Fuses
   Plugs/receptacles etc.
   Gas - gas apparatus
   Laboratory
   Cuvettes
   Vacuum - apparatus
   Drilling machines

4. Work in **dental plates**

5. **Metal work**

6. **Theory:** Arabic
   Trade Theory
   Arithmetic
   Chemistry
   Physics
   Hygiene
   PE

MUNICIPAL COUNCIL
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بلدية رام الله

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
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رقم المشاورة .....
التاريخ .....

CHEMISTRY

1. List of reagents and chemicals
2. Detailed curriculum (Norway)
3. Detailed list of lab exercises.

A lab complete up to the standard mediated will take the following funds:

Glass material	25.000.-
Instruments	10.000.-
Electrical equipment	21.000.-
Other lab equipments	17.000.-
Scales	18.000.-
Reagents and chemicals	17.000.-
	108.000.-

These prices are calculated on my knowledge of the prices in Norway and may vary.

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MUNICIPAL COUNCIL
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دائرة بلدية رام الله

Reference .....
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Telephone 2436 P.O.B. 3

رقم المشاورة .....
التاريخ .....

LABORATORY ASSISTANT - CHEMISTRY
CURRICULUM

A.	Chemistry	27 periods a week
1.	Basic laboratory techniques	180 periods a year
2.	Organic chemistry - students exercises	90 " " "
3.	Inorganic chemistry - students exercises	90 " " "
4.	Quantitative analysis	160 " " "
5.	Qualitative analysis	120 " " "
6.	Different problems as instruments, synthesis, gas-analysis etc.	175 " " "
7.	Basic chemistry	312 " " "
8.	Industrial chemistry	78 " " "
9.	Technical drawing (limited to graphs etc.)	10 " " "
		1055 periods a year
B.	Physics	3 periods a week
C.	Mathematics	3 " " "
D.	Arabic	2 " " "
E.	English	3 " " "
F.	PE	2 " " "

The laboratory must have 3 tables with small sinks at both ends, hot and cold water, outlets for electricity and gas.

The tables must have ample space for bottles on a shelf.

In the lab there should be at least 3 cupboards that are evacuated by a fan.

The teachers desk must have the same facilities as the students tables save the place for bottles.

There should be one blackboard and several softboards in the lab.

There must be at least one extra table with a large sink, H and C water and facilities for drying test tubes.

Scales are kept in a special room inside the store.

The lab must have a shower for emergency use.

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RAMALLAH

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رقم المشاورة .....
التاريخ .....

Chemistry equipment 1 set per student

(Marco)	
	Qualitative analysis
3	test pipttes
10	test tubes with stoppers
1	test - tube (stand)
1	cleaning brush for test tubes
1	holder for test tubes
1	mortar with pestle
1	spatul
1	funnel, glass
	Quantitative analysis (general)
2	asbestos mats
2	heaters 150ml.
2	" 200ml.
2	" 400ml.
2	" 600ml.
1	" 250 (tall type)
1	Bunsen burner
1	burette - stand
1	" - holder (fisher)
1	distillation apparatus (ex vigreux)
1	distillation a- return (cooler) condenser
1	" - flask 250ml.
1	" " 500ml.
3	crucibles with lids
2	crucibles - filtering
1	tong crucible
1	dessicator
3	conical flasks (erlenmeyer) 300ml.
1	" " 500ml.
1	" " 100ml.
1	" " 750ml.
1	combustion tube
2	gooch - crucible
1	holder for conical flasks
1	cooler - reflux
1	" liebig
2	stands with clamps
2	muffs
1	HgI-plate (mercuryiodide)
1	cobalt plate
1	measuring cylinder 10ml.
1	" cylinder 50ml.
1	" " 250ml.
1	measuring flask 100ml.
2	" " 250ml.
1	" " 500ml.
1	" " 1000ml.

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Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

2	small cylindrical glasses with lids
5	pipettes 5, 10, 20, 25, 50ml.
1	tweezer
1	thermometer
1	aerometer
1	thermometer - clip
2	porcelain - dishes (9.5cm. & 5cm.)
1	roll PH-paper
1	porcelain boat
1	petridish
1	pollus - balcom
5	tubeclips (Mohr & hofmann)
1	Washing bottle
1	standing flask 1 litre
1	fishtail burner
1	funnel with tap
1	glass rod with Pt-thread
2	funnels 7cms.
1	tripod
1	clay triangle
2	weighing glasses with lids
3	clock glasses 6.8.10cm.
1	pyknometer
1	Ni-tray
	assortment of dark 250ml., 500ml. flasks with screw-stoppers.

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MUNICIPAL COUNCIL
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دائرة بلدية رام الله

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المشاورة .....
التاريخ .....

General Lab Equipment

2	analytical scales (Mettler)
1	Photometer
4	ovens for ignition
1	microscope up to 1000 x
1	PH-meter
1	scale precision
3	centrifuges
1	spectrophotometer
1	distillation apparatus (glass distillation)
1	water bath
2	electrolysis apparatus
1	calorimeter
1	drying cupboard
1	refrigerator
2	plate - cooking
1	polarometer
1	viscosity measuring device
1	refraction meter
6	water jet pumps

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RAMALLAH

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Glass equipment needed

300	test tubes
20	beakers 100ml.
30	" 250ml.
30	" 400ml.
30	" 600ml.
20	" 800ml.
4	" 2000ml.
2	" 5000ml.
20	measuring flasks 100ml.
30	" " 250ml.
20	" " 500ml.
20	" " 100ml.
40	conical flasks (Erlenmeyer) 300ml.
4	" " " 1000ml.
4	" " " 2000ml.
10	filtering flasks 500ml.
5	" " 2000ml.
10	boiling flasks 500ml.
10	standing flasks 500ml.
10	3 necks - flasks 1000ml.
10	gas washing bottles 250ml.
10	" " " 500ml.
10	vacuum dessicator with plates (20cm.)
20	plast water bottles 500ml.
100	clock glasses
60	glass bottles (sample bottles with lids)
20	weighing glasses
20	funnels 80mm.
5	" 150mm.
40	filter funnels with rills 80mm.
20	T-tubes
20	evaporating basins
10	crystallation basins
20	measuring cylinders 50ml.
10	" " 250ml.
4	" " 1000ml.
30	burettes 50ml.
30	burettes (Daffert) 50ml.
20	measuring pipettes 5ml.
20	file-pipettes 5ml.
20	" " 10ml.
20	" " 15ml.
20	" " 20ml.
20	" " 25ml.
20	" " 50ml.
10	liebig condenser
10	ball - condenser
	glass-tubes variety of diameters
	glass-rods
10	funnels, acid

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40	CaCl2 - tubes	
10	glass-tape, straight	
10	" " T shape	
20	pyknometers	
60	crucibles	
20	filtering crucibles	
20	glass filter - crucibles	
5	funnels - buchner	
	bottles with glass topper - brown	asserted
	plast bottles	

Apparatus

1	pc.	PH-meter
1		viscositymeter
1		sampling apparatus
1		heating oven
5		boiling - plates
1		magnetic stirer
2		water destillation apparatus
1		water bath with thermostat

Other necessary equipment

20	bunsen burner - stands with necessary options
40	tube pinchers, [illegible]
40	" " [illegible]
20	filter-funnel - stands
20	pipette - stands
20	burette - stands
20	" muffs
5	knives
5	files 3 edged
5	pair of scissors
20	bunsen burners
20	asbestos
10	test tubes stands
20	tweezers
20	spatulas
20	" - large (spoons)
10	brushes for weighing
20	weighing - ships
5	mortars with pestle
20	thermometers - 10 - 110 C
10	" 0 - 250 C
2	" - adjustable
2	aerometer set
20	test tube holders
20	rolls PH-paper, universal
1	set of drills for stoppers
1	sharpener for above
	asserted filters
5	crucible tongs
1	stop-watch
2	vacuum meters
5	tubes of silica fat
10	dust bins plast
2	dust bins for inflamable litter

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MUNICIPAL COUNCIL
RAMALLAH

دائرة بلدية رام الله

Reference .....
Date .....

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Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

	liquid soap
20	clothes for washing
5	brushes for cleaning
5	bottle brushes - cleaning
5	brooms
15	pair of spectacles (safety)
1	cupboard for first-aid equipment
	fire extinguishing equipment
	hand tools
	stoppers assorted (rubber and cork)
	rubber tubing
3	scales - analytical
1	direct reading scale

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MUNICIPAL COUNCIL
RAMALLAH

دائرة بلدية رام الله

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المشاورة .....
التاريخ .....

Curriculum house installation

Trade Theory

Drawing	2	periods	a	week
Trade calculations	2	"	"	"
Material knowledge	1	"	"	"
Electro technique	4	"	"	"
Law	2	"	"	"
Laboratory exercises	3	"	"	"
Workshop practice	15	"	"	"
Physics & Chemistry	2	"	"	"
Arabic	3	"	"	"
Mathematics	2	"	"	"
English	2	"	"	"
Physical Training	2	"	"	"
	40	"	"	"

Home-installations

Tools one set per student

1 Blacksmith hammer - flat headed
1 square, metal 200mm.
1 measuring tape
1 combination tong 175mm.
1 tong, flat jaws 120mm.
1 tong, round jaws 120mm.
1 tong, cutter 120mm.
1 hack-saw 12"
1 knife
1 screw driver, large
1 " ", small
1 " ", very small
1 testing lamp

Tools - common

1 anvil 35-50 kg.
4 hammers (spheric, flat-headed) 500g.
4 " " " " 300g.
4 " " " " 200g.
2 " " " " 100g.
2 blacksmith hammer 200g.
2 " " 100g.
4 mallets
1 hammer carpenters
5 flat chasels length 125, 150, 175, 200mm. (½" - 5/8")
5 cross chisels, same length
2 semi-round chisels
1 set of center-punch - 5 different sizes
2
4 diameter 4, 5, 6, 8mm.
5 3/8", ½", 5/8", ¾", 1"
1 set of stamps numbers
1 set of stamps letters
2 tweezers
85 assorted files
different set of squares
different pair of compasses
Sharpening stones
1 scriber (250mm. high)
6 calipers
1 precision caliper
1 micrometer 25-50mm.
1 " 0-25mm.
2 water level
assorted steel rulers
4 awls
1 set of variable wrenches (up to 40mm.
1 set " " " (fixed)
2 sets of umbrace keys

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دائرة بلدية رام الله

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Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Seperate power supply for each table recommended

10	universal instruments 20 k /V 5A
10	voltmeters 0-150/300/600V (soft iron)
15	amperemeters 0-1,5 and 20 Amps (soft iron)
2	wattmeters, 1 phase 1 and 5 Amps 30/60/120/240 volts
4	ohmmeters
10	variable resistors 15 3,5A
6	" " 6 /12A
2	" " 50 /2.5A
2	" " 150 /2A
2	" " 2500 /0.5A
2	fixed resistors 2 x 50 5A
2	" " 2 x 100 2.5A
2	" " 2 x 150 1.5A
2	" " 2 x 200 1A
2	wheatstones measuring bridge 2,5 - 2/V
2	decade - resistors) - 100 k ohm
2	" " 220V / 10A 10 steps
2	coils 1000 turns 1A
2	iron
2	condensers
2	lead accumulators 6V /30 Ah
1	Ni - Fe 6V 30 Ah
1	charger 6 - 12V 6A
2	insulation measuring meters
	200 jumper (leads)
	Assorted electrical generators and motors.

Instruments

1	voltmeter (very accurate) 0 - 150 V /0.5A
1	Amp. meter " " 0 - 6 - 30A
2	current-transformers 5 - 10 - 25/1A
1	wheatstones bridge
1	light measuring meter (photometer)
1	oscilloscope double beam
1	tachometer (5000 t/min)
1	tong amp. meter 0 - 50A
1	thermoelement
	batteries.

This is roughly what will be needed.

MUNICIPAL COUNCIL
RAMALLAH

دائرة بلدية رام الله

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

5 different screwdrivers
1 set of box wrenches
assorted screwdrivers as: angle, Phillips, stubby,
assorted tongs
Pipes pliers
Isulated-hand pliers (No. 67)
half-round pliers
flat-jaw pliers
round-jaw pliers
pincers
5 vices (100mm.)

Description

Quantity

2 hand-clamp
1 carpenter-clamp
1 tin cutter
1 holes cutter
4 normal pair of scissors
1 manual lever saw (for 2mm. at least)
2 soldering guns (quick heating)
4 electric soldering iron, flat tip 450w
4 electric soldering iron, round tip 450w
1 gas soldering iron
3 side-burner
assorted internal taps and dies 1/8", 5/32", 3/10", 3/8"
assorted external taps and dies, ¼", ½", 5/16", 2/8"
assorted drill bits 1 - 25mm.
1 dozen each size, 1 - 6mm.
½ dozen each size 6 - 10mm.
2 pieces each size 10 - 15mm.
1 piece each size 15 - 25mm.
2 manual drills
4 manual drill bits, ½", 5/8", ¾"
1 " " " variable width
assorted drill bits for hard cement walls
1 manual drill
1 electric manual drill
2
lathing equipments
vertical electric drills (1" drillbits)
1 small lathe with equipments
grinding machines double with dustexhauster
" " for tools 200mm.
protection goggles

In the laboratory the following power must be installed

3 x 220V 16A alternating current (AC)
2 x 220V 10A " "
Variable AC 3 phases 0 - 220V, 10A
" AC 1 phase 0 - 220V 6A
Direct current 2 x 110V, 6A

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RAMALLAH

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

Seperate power supply for each table recommended

10	universal instruments 20 k /V 5A
10	voltmeters 0-150/300/600V (soft iron)
15	amperemeters 0-1,5 and 20 Amps (soft iron)
2	wattmeters, 1 phase 1 and 5 Amps 30/60/120/240 volts
4	ohmmeters
10	variable resistors 15 3,5A
6	" " 6 /12A
2	" " 50 /2.5A
2	" " 150 /2A
2	" " 2500 /0.5A
2	fixed resistors 2 x 50 5A
2	" " 2 x 100 2.5A
2	" " 2 x 150 1.5A
2	" " 2 x 200 1A
2	wheatstones measuring bridge 2,5 - 2/V
2	decade - resistors) - 100 k ohm
2	" " 220V / 10A 10 steps
2	coils 1000 turns 1A
2	iron
2	condensers
2	lead accumulators 6V /50 Ah
1	Ni - Fe 6V 50 Ah
1	charger 6 - 12V 6A
2	insulation measuring meters
	200 jumper (leads)
	Assorted electrical generators and motors.

<u>Instruments</u>

1	voltmeter (very accurate) 0 - 150 V /0.5A
1	Amp. meter " " 0 - 6 - 30A
2	current-transformers 5 - 10 - 25/1A
1	wheatstones bridge
1	light measuring meter (photometer)
1	oscilloscope double beam
1	tachometer (5000 t/min)
1	tong amp. meter 0 - 50A
1	thermoelement
	batteries.

This is roughly what will be needed.

MUNICIPAL COUNCIL
RAMALLAH

دائرة بلدية رام الله

Reference .....
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تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

RADIO & TV

1- Complete list (detailed) of curriculum
Arabic and English

2- List of lab - exercises.

The benches in the first year lab must be tough ones and in a length with places for 45 students.

They need 220 VAC for each place.

In 2nd. year lab each student has his own desk with a drawer (with a lock). In addition there is a moveable instrument - table where the main service instruments are fixed (oscilloscope - vacuum voltmeter multimeter etc.).

Estimated cost :	IL	110.000.-	1st year
	IL	150.000.-	2nd + 3rd years

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Reference .....
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Telephone 2436 P.O.B. 3

رقم المشاورة .....
التاريخ .....

TOOLS & EQUIPMENT FOR RADIO & TV

Handtools: each student one set.

3	pcs.	long nosed plier - straight and curved
1	"	plier - cutter (side -)
1	"	plier - combination
1	"	wrench (adjustable)
1		Caliper
1		ruler - steel (30cm)
1		marker - steel
1		screwdriver 6" 4mm.
1		" 6" 6mm.
1		knife
1		hammer 200g pen
1		" 200 sphere
1		soldering iron 70W
1		brush (steel)
2		brush - soft 1½" ½"
1	set	keys for trimming

Common tools

2	pcs.	soldering irons 150W, 250W/220V
1		small soldering irons 20W/220V
8		screwdrivers 6 - 10mm.
4		wrenchs 10"
4		polygrip - plier
2		vise
2		hammers - plastic
2		scales for pick-ups 0-20g
2		" " tapercorder 0 - 400g
1		micrometer
2		2m. measuring tapes
1		wire cutter
2		scissors large
2		sharping stones
1		hand drill 6mm.
1		" " 10mm.
1		" " electric 10mm.
1		vacuum cleaner
1	set	letter and number - metal punches
1	set	wrenches box
1	"	wrenches (set)
1	"	wrenches pipes
2	"	drill bits 1 - 10 mm.
10		files, round, semi-round, square and flat

Measuring equipment

10	pcs.	multmeters
10		vacuum tube - voltmeter or transistor voltmeter
10		oscilloscopes single beam
1		" double beam
2		audiogenerator

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MUNICIPAL COUNCIL
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دائرة بلدية رام الله

Reference .....
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رقم المخابرة .....
التاريخ .....

10		RF signal generator AM/FM
2		Wobblerscopes
1		pattern generator
10		out-put meters
1		frequency - analyzer (selective tube voltmeter)
1		signaltracer
1		tubetester
1		transistor tester
12		radio receivers with FM
7		TV - receivers
2		battery eliminators
1		insulation tester
2		voltmeters one phase up to 300W
6		rhetostats (variable resistance)
6		decade - resistors
2		" - condenser
2		" - coils

Machines

1		column - drill (vertical)
1		coil - winding machine
1		lathe (small)
1		plate - cutter (1m)
1		plate - bending machine (80cm.)
1		rivet machine
1		grinding/polishing machine
1		crisscross coil winging machine
1	set	hole punches
3		microphones, carbon, crystal and dynamic
6		insulation - transformers variable 2A one phase
2		insulation - transformers variable 8A one phase
1		overhead projector
1		slide ruler - demonstration
1		microscope
1		radio receiver - stereo
1		amplifier 2 x 10W stereo
1		alarm system - burgler
1		tape recorder
1		record-player
2		magnets
2		hoze-shoe magnets
5		" " " asserted

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'AL COUNCIL
RAMALLAH

Reference .....
Date .....

تلفون ٢٤٣٦ - ص.ب ٣
Telephone 2436 P.O.B. 3

رقم المخابرة .....
التاريخ .....

CURRICULUM RADIO & TV

PRACTICAL

1. **Mechanical dexterity** (20% of the time)
   a. use of the tools
   b. use of lathe, sheet-blending machine, winding machine sharpening of tools etc.
   c. work with metal and plastic etc.
   d. making of apparatus and items according to drawings.

2. **Soldering** (5%)

3. **Installing**
   a. semiconductors
      condensers
      resistors
      leads
   b. cable work
   c. installing car radio, antennas, tape-recorders etc.

4. **Measurements** (18%)
   VOM-meters
   Audio generators
   measuring transmitters
   oscilloscope
   impedance matching
   influence of measuring equipment
   measurements

5. **Adjustment of Radio and TV** (8%)
   AM/FM/TV

6. **Adjustment of tape-recorders and record players** (4%)

7. **Installing of PA equipments and sterio equipments** (2%)

8. **Troubleshooting and repair in radio technical equipments** (5%)
   a. radio-receivers for AM/FM, battery and mains driven.
   b. carradio
   c. TV receivers
   d. tape-recorders, amplifier, record players

9. **Custom Service** (2%)

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UNITED STATES GOVERNMENT

memorandum

DATE: July 19, 1979

REPLY TO ATTN OF: NE/TECH/SPRD, Ann Gooch

SUBJECT: Issues Paper - ANERA OPG, Development Assistance, West Bank/Gaza

THRU: NE/TECH, Mr. Charles B. Weinberg

TO: Near East Advisory Committee

The Project Review Committee met on July 11th to discuss ANERA's proposal for a new OPG for development assistance activities in West Bank/Gaza. Four members of the PRC met with ANERA's President, Peter Gubser, on July 13th to obtain further information on issues raised by the PRC.

This is the fifth proposal received from ANERA for annual AID funding. Since FY 75, ANERA's projects have moved from small endeavors, such as provision of vocational training equipment, to contributions to direct developmental activities as indicated by the substantial support to cooperatives contained in this proposal. The funding picture has also substantially changed, from a grant of slightly over half a million dollars in FY 75 to this year's request for $3,031,400. ANERA has encountered difficulty in obtaining Military Government clearance of some sub-projects; three of the twelve sub-projects under the FY 78 grant, totalling $296,000, have yet to be implemented for this reason. Nevertheless, the fact that 9 of 12 sub-projects are going forward is encouraging, particularly given the stormy relationship between ANERA and the GOI. During the PRC meeting and the subsequent meeting with Dr. Gubser, the following issues were discussed:

1. The use of AID grant funds for sub-grants rather than sub-loans to organizations whose activities generate revenue.

This issue had been raised with ANERA last year. The PRC wanted to be sure ANERA had explored all possibilities for utilizing existing credit institutions as channels for making and servicing loans as it had agreed to do. As a result of the meeting with Dr. Gubser, the PRC is satisfied that ANERA has done extensive research on this problem and that sub-loans could be made only if the PVO itself acted as a loan agency, an unacceptable alternative.

2. Concern was expressed over the agricultural cooperatives being able to provide the substantial amounts stated as their contribution to project activities, given their relatively small memberships.

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

OPTIONAL FORM NO. 10
(REV. 7-76)
GSA FPMR (41 CFR) 101-11.6
5010-112

ANERA does not consider this a problem. While farmers' per capita income is low, almost every cooperative member receives money from a family member abroad and, in addition, is eligible for small, low-interest, loans from the Jordanian Cooperative Organization.

3. Two proposed projects would provide electricity during daylight hours to villages served by the Hebron District and Nablus District Unions of Village Electrification Cooperatives. Grant funds would be used to purchase generators and electrical equipment. The PRC questioned the benefits, both economic and social, to be derived from provision of daytime electricity to the cooperatives in Hebron and Nablus Districts. In particular, there was scepticism about ANERA's estimates of the number of workshops which would be established as a consequence of making electricity available during daylight hours.

ANERA advises that daytime electrification began recently in Halhul District, and that the figures contained in ANERA's proposal are based on Halhul's experience to date.

4. The PRC questioned why assistance to Gaza was limited to a contribution to the Gaza Municipality's sizeable Rainwater Conservation Project.

ANERA agrees that Gaza is not getting a fair proportion (however defined) of AID funds channeled to the Occupied Territories. The present proposal does little to redress this imbalance. From ANERA's prospective, the difficulty is that there are only two cooperatives in Gaza. One, a Fishing coop, is already receiving assistance under the AID/CDF grant, and ANERA does not believe that the second, a citrus cooperative, is ready for assistance at this time.

5. Revolving Loan Funds are proposed for cooperatives in Tarqumiya and Nablus. The capital for the Funds would be totally provided by ANERA under this grant. The interest rate on the two Revolving Loan Funds is very low. The PRC believes that the Funds, as described in the proposal, would be decapitalized.

It is unclear whether the 1 - 3% loan interest rate is Jordanian practice or law. ANERA will explore this further. If it turns out that the low interest rate is mandatory by law, a "loan service fee", sufficient to cover administrative costs and ensure that the fund is not decapitalized, might be a feasible solution. If not, we need to consider whether or not AID should support these projects.

6. The benefit/cost data is not consistent from sub-project to sub-project. In some instances, there is no benefit/cost analysis at all. Where the analyses were done, cost data is sometimes incomplete or understated due to error (resulting in an apparent overestimate of the benefit/cost ratio). Operating costs (for

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one year) are included as part of the organization's contribution towards some projects, but not others (these costs should not be included as a contribution). Some projects use 1977 prices, while others use those of 1979.

All of these problems have been discussed with ANERA. In collaboration with its Jerusalem office, consistent and current figures will be developed, and revisions will be submitted to AID as soon as possible. The new figures will change the cost-benefit ratio of some sub-projects.

7. It should be noted that Project 8, Jalazone Bakery Cooperative, will not be considered for a sub-grant until the cooperative's membership has substantially increased.

Recommendation: That the NEAC recommend a grant to ANERA for the sub-projects included in its FY 79 proposal. Implementation of particular sub-projects would be contingent on receipt of information satisfactory to AID that the projects are economically viable.

Given current funding restraints - which indicate maximum funding for ANERA of approximately $2,000,000 this FY - and difficulties anticipated in receiving Military Government approval of projects, the PRC recommends that the NEAC consider a grant to ANERA in the $2,000,000 range for these eighteen projects. This would enable ANERA to implement projects as they receive Military Government clearance and would, hopefully, ensure expenditure of funds within the period of the grant.

Project Review Committee:

NE/TECH/SPRD:GLangley
NE/TECH/HRST:MHurley
NE/TECH/HPN:BTurner
NE/TECH/AD:JSwanson
NE/PD:DMackell
NE/DP:GDonnelly
NE/EI/I:RMisheloff
GC/NE:GBisson
NEA/IAI:MDean

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