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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D. C. 20523

GUATEMALA

PROJECT PAPER

HIGHLANDS AGRICULTURAL DEVELOPMENT
AMENDMENT NUMBER 2

AID/LAC/P-466
(CR-586, 471, 147/1, 147)

PROJECT NUMBER: 520-0274
GRANT NUMBER : 520-T-037

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete)

Amendment Number: 2

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: Guatemala

3. PROJECT NUMBER: 520-0274

4. BUREAU/OFFICE: PDSO 05

5. PROJECT TITLE (maximum 40 characters): Highlands Agricultural Development

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 90

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)

A. Initial FY 86 B. Quarter 3 C. Final FY 90

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY 83 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(1,300)	(200)	(1,500)	(1,900)	(200)	(2,100)
(Loan)	(3,664)	(6,836)	(10,500)	(4,760)	(8,740)	(13,500)
Other U.S. 1.						
Other U.S. 2.						
Host Country		6,311	6,311		8,807	8,807
Other Donor(s)						
TOTALS	4,964	13,347	18,311	6,660	17,747	24,407

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) FN	200	690	260	1,500	10,500	600	3,000	2,100	13,500
(2)									
(3)									
(4)									
TOTALS				1,500	10,500	600	3,000	2,100	13,500

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code

B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To improve the productive resource base of the rural poor in Guatemala's Highlands.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY

15. SOURCE/ORIGIN OF GOODS AND SERVICES

☒ 000 ☒ 941 ☐ Local ☒ Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment)

Richard Goughnour, Acting Controller

DATE: 9-26-86

17. APPROVED BY

Signature: Anthony J. Cauterucci

Title: Director, USAID/Guatemala

Date Signed: MM 09 DD 26 YY 86

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

AID 1330-4 (8-79)

PROJECT PAPER SUPPLEMENT
HIGHLANDS AGRICULTURAL DEVELOPMENT, 520-0274

I. Background

On September 30, 1983 USAID/Guatemala signed a $7.5 million Loan Agreement with the Government of Guatemala's Ministries of Finance, Agriculture and Communications, Transportation and Public Works. The purpose of this project was to improve the productive resource base of the rural poor in the Guatemalan Highlands. This was to be achieved, in Regions I and V (see map, Annex III, for location of Regions), through the maintenance of access roads ($3,879,000), the initiation of pilot reforestation activities ($329,000) and the construction of small-scale irrigation systems and soil conservation activities ($3,292,000). Grant funds totalling $1,500,000 primarily financed technical assistance for the reforestation and access road maintenance components of the project. The GOG's counterpart payment was Q5,782,000.

The original agreement obligated only $2,500,000 of AID funds. A subsequent amendment provided the $5,000,000 balance. This project was amended a second time in March 1985: increasing the AID funding by US$3,000,000 and the GOG counterpart by Q528,000. The amendment extended activities in small scale irrigation systems and soil conservation to Regions II, VI and VII.

II. Project Description

The overall goal of the project remains to increase agricultural productivity of rural Guatemalans living in the project area. The purpose of the project is to improve the productive resource base of the rural poor in the project area.

The amendment's targets are to make available the benefits of mini-irrigation systems to 675 families possessing a total of 150 hectares. Soil conservation activities will be undertaken by an estimated 1,000 beneficiaries on some 700 hectares and it is projected that 200 hectares will be reforested, benefitting about 800 farm families. In addition, selected personnel from INAFOR and DIGESA will recieve long- and short-term training, related to this add-on's activities and finally, some 128 kilometers of rural roads will be added to our roads maintenance component.

Under this current supplement, AID funding for selected activities will be increased by $3,000,000 in FY86 loan money and $600,000 in FY 86 grant funds. These funds will be used to fortify the rural roads maintenance, small-scale irrigation, soil conservation and forestry activities as described below.

The original project funded small-scale irrigation and soil conservation activities in the Ministry of Agriculture's Regions I and V (which include all or part of the departments of El Progreso, Guatemala, Baja Verapaz, Sacatepequez, Chimaltenango, Quiché, Totonicapán, Solola, Quetzaltenango, Huehuetenango and San Marcos). The current amendment will finance the initiation of these activities in Region IV. In addition, this amendment proposes to develop and expand INAFOR's capabilities and activities.

The existing AID financed trust fund in the National Agricultural Development Bank (BANDESA) will be increased by US$500,000 of this add-on's loan funds. These additional funds will be used for social payments for the soil conservation component of this add-on, as well as to provide credit for the small irrigation component in newly included areas.

The GOG counterpart for this add-on will be the equivalent of US$2,520,794: 70% of AID's total input.

A. Rural Roads Maintenance Component

This component is an extension of the current Rural Roads Maintenance component of HADs. It will cover a budgetary short fall of the first phase of the roads component as well as enable the inclusion of an additional 128 kilometers of roads into the Ministry of Works' maintenance program. US$769,000 of AID loan funds will be used for the purchase of hand tools, fuel, lubricants and construction materials.

In addition, 24 dumptrucks will be purchased to help maintain the primary and secondary roads servicing our access roads. This purchase will require US$731,000 of AID loan funds.

The total input for this component is US$1.5 million of AID loan funds and the Quetzal equivalent of US$1,279,000 of GOG counterpart funds.

B. Soil Conservation

This component will be implemented by two institutions: DIGESA Region IV, which will provide TA for the design and construction of the soil conservation structures, and; BANDESA Region IV which will administer the trust fund that will finance the social payments, in case they are used.

This component will support the extension of soil conservation activities to the Pacific Coastal region (bocacosta), Region IV. This includes portions of the departments of Quetzaltenango, San Marcos, Solola, Chimaltenango, Suchitepéquez and Escuintla.

The region comprises 13,500 square kms, distributed in two clearly defined zones: 1) the coastal plains, made up of large farms which produce sugar cane, cotton, banana, pasture and some basic grains, and 2) the bocacosta, which makes up part of the Pacific portion of the central highlands, and is comprised of small, poor communities that, for the most part, do not have access to such services as schools, roads, electricity or potable water. It presents similar agro-ecological, socio-economic and cultural conditions, including vulnerability to erosion, as the areas of the highlands where we are currently carrying out the project. For these reasons the inclusion of the bocacosta into the HADs project seemed a logical evolution.

The depredations of uninformed agricultural activities, and heavy rainfalls exacerbated by the sharply sloping hills of the region, have resulted in the erosion of a major portion of the once rich volcanic soils that mantled the region. The region, however, presents excellent ecological and soil conditions for agricultural and livestock production, including tropical fruits, truck farms and the raising of small farm animals. Using soil conservation structures to moderate the streams of rain water, and small irrigation systems to channel water sources during the dry season, HADs can help develop the infrastructure to turn the currently damaging rainfall into a benefit.

An estimated 1,000 farmers in the regions selected for this add-on will be trained by DIGESA in the construction of soil conservation structures. This activity will result in the protection of some 700 hectares. It will be carried out in close conjunction with small-scale irrigation activities, and where technically feasible, on the same farm lands. The structures may consist of any one of several designs. However, given the soil and water retention and soil slopes likely to be encountered, it is estimated that 70% of these devices constructed will be simple bench terraces. Other types of soil conservation structures constructed will be brush and rock dams, strip cropping or contour furrows. The soil conservation method used will be determined by the DIGESA extension agent and the local farmer.

It should be noted that terracing alone - without irrigation, additional access roads or crop diversification - permits a sustained increase in yield of traditional crops (corn, beans, wheat and potatoes) of about 75%, and of vegetables of about 35%.

AID will attempt to carry out soil conservation activities in Region IV on a voluntary basis, without resorting to social payments. If this approach is not successful, social cost payments will be used, but only to introduce soil conservation

practices in areas where they are not presently employed. In that case, interested farmers will be selected by DIGESA agents to receive payments and will be paid on a per unit of land improved basis. BANDESA will participate as the financial agent for the social cost payments which will be approved by the DIGESA extension agent and which will be paid after the construction process.

The resulting increase in production due to the introduction of soil conservation structures is estimated to be some 50%. Therefore, the small farmer may, without even diversifying his crops, substantially increase his income by the establishment of simple, relatively inexpensive soil conservation structures. The additional income will tend to decrease the incidence of farmers leaving their own land to earn money in the cities or on other men's land.

BANDESA's trust fund will be increased by US$200,000 in AID loan funds to cover social cost payments in Region IV. Additionally, operational funds totalling US$358,000 (US$142,500 of AID loan funds and the equivalent of US$222,938 of GOG counterpart funds), will be made available to Region IV, to provide equipment and supplies for that region's technical team.

C. Small-Scale Irrigation

This component comprises the construction of simple infrastructure works using local labor and materials to irrigate agricultural lands used primarily for rainy season cultivation thereby introducing the potential for one additional harvest annually, with concomitant increases in production of food for consumption and sale.

The project is designed so that one system serves various small farms. The farmers work their own plots individually, but cooperate and coordinate their efforts with regard to the irrigation system. A community committee organizes and manages the maintenance and operation of the systems. When a community is selected the potential beneficiaries willingness to be trained and organized is a major factor. Other consideration are availability of water, number of farms served, topography, etc. The cost to irrigate one hectare runs from Q2,700 to Q3,300, depending on technical variations.

The recipients of these irrigation systems are benefitted in various ways, the construction of the system provides labor; increased production also make more produce available for the consumption of the farmer as well as sale on the local markets; and, finally, where farmers have access to good roads and have been able to introduce a variety of short-season crops, irrigation has had a major impact on net earnings: approximately a doubling of total

output over the calendar year, due to at least one extra crop permitted by a reliable water supply.

Experience has shown that there are no overriding technical difficulties with mini-irrigation activity. A number of potential approaches are feasible for providing irrigation depending on the terrain and water source. The majority of the systems constructed, however, will be gravity flow, the most cost-effective irrigation method for the highlands. They will be built using labor intensive practices and local tools and materials, and will be carried out in conjunction with soil conservation and drainage improvements.

This component will follow the same system of implementation used in the original HADs phase. DIGESA will provide the technical assistance from the identification of the water sources and organization of the communities to the design, construction and supervision of the works. BANDESA will provide the credit to the farmers for purchase of materials and equipment.

This activity will be implemented in the Pacific coastal Region, number IV. It is estimated that this activity will cover a total of 150 hectares and benefit some 675 farm families. The bocacosta is an ideal region for small scale, gravity flow irrigation systems as it contains countless sources of water appropriate for tapping at a relatively modest cost.

At the beginning of 1986 DIGESA, spurred by its successes in other areas of Guatemala, set up a small scale irrigation team in Region IV. In the 8 months since activities were started in Region IV, ten sites, totalling 100 hectares have been identified as having a very high level of feasibility for small scale irrigation systems. Nevertheless, a shortage of funds for equipment and credit has sharply hampered progress in these and other promising communities.

The small scale irrigation component will require a US$300,000 increase in BANDESA's trust fund for small farmer credit. In addition, US$298,903 (US$134,500 in AID loan funds and the Quetzal equivalent of US$164,403 of GOG counterpart payment) will be utilized for materials and equipment to support the activities of the DIGESA technical team in Region IV.

Ten DIGESA employees will receive short-term training related to the design and management of irrigation systems and marketing of produce:activities directly related to this project's goals. The training will be financed by this add-on's grant. The training will be either third country, in-country using AID financed TA, or a mix of the two. The best option is currently being studied.

This component will also finance the purchase of materials and equipment of two Plant Parasite Laboratories, in Regions IV and VI. DIGESA has personnel qualified to carry out the necessary lab procedures but has been stymied by the lack of support equipment.

The laboratories will be located in Retalhulehu (covering regions I, IV and part of V) and Jutiapa (covering regions II, VI, VII and another part of V), respectively.

The laboratories will have departments of soils, nematology, phytopathology and entomology and, therefore will be able to support both our irrigation and soil conservation activities. It is expected that the laboratories will carry out 2,000 analyses a year as well as give 8 courses annually to DIGESA's promoters and technicians in control and prevention of diseases in the diverse crops encountered in our small scale irrigation and soil conservation components.

GOG counterpart for the soils conservation, small scale irrigation and laboratory components will be the equivalent of US$718,985.

D. INAFOR Reforestation

The forest resources of Guatemala are being poorly utilized and are dwindling sharply. Approximately 45,000 hectares of land are being deforested every year, equivalent to 1% of the remaining forest area, yet less that 5,000 hectares are being planted annually. This widespread destruction has caused areas of wood supply to recede from the centers of demand, with consequent increases in real prices and hardships in obtaining this essential product. Forests have been degraded or converted to pasture and crops on extensive areas of land not suitable for non-forest uses because the slope of the land is too steep or rainfall is too high. Here the environmental consequences have often been disastrous, with the well known results of soil erosion, loss of fertility, flooding and impoverishmet of the population dependent on these fragile lands.

This component is designed to address the degradation of the forests, and lay the groundwork for future projects. It comprises four sub-activities: 1) communal forest development and management, 2) fire control and prevention, 3) control and identification of tree diseases and insects, and 4) long- and short-term training.

The communal forest development component is the only activity, of the four listed above, that was initiated during the fist phase of the pilot project. It is being implemented in three communities in Region I: San Juan Atitán and Chacaj in

Huehuetenango, and Sacapulas in Quiché. The total area planned to be reforested during the initial phase was 150 hectares. Following is the performance of this component up to August, 1986:

Community	Reforested Area	Farmers Employed	Main Trees Utilized
San Juan Atitlán	37 Has	80 farmers	Cypress, Alder Tree
Chacaj	13 Has	75 farmers	Leucaena, Eucalyptus
Sacapulas	40 Has	150 farmers	Leucaena, Eucalyptus
TOTAL	90 Has	305 farmers	

Although it appears that the pilot project's targets will be met, avoidable errors in procedure were identified on a recent field trip by AID personnel. These errors, when corrected should result in a more efficient project. Specifically, the original project was designed to be carried out with voluntary labor, supported by INAFOR technicians. In fact, no attempt was made to develop a voluntary work force, rather, community members are paid to help raise and plant trees. This results in higher project costs and jealousy on the part of those community members not selected for the paid positions. Furthermore, no pre-project survey was carried out to determine the communities' interest in trees, nor to identify the type of tree preferred, and finally there is no on-going promotion campaign to inculcate the importance of reforestation to the beneficiaries. These errors are being corrected in this add-on.

Two observations made by the AID team support the feasibility of voluntary labor for reforestation.

i) One of the communities currently using paid labor is San Juan Atitán. This community planted its own communal forest, using voluntary labor, 16 years ago. This current forestry activity, however is not meeting with the cooperation desired due to the jealousy on the part of townspeople who have not been selected for the paying positions. The payments have caused social complications that would not have otherwise existed.

ii) The INAFOR forest specialist contracted under this component, has been doing reforestation with voluntary labor in four communities not originally included in this project, they are: Tierra Blanca (180 families) and Xolajap (150 families) in Totonicapin, and El Manzanillo (100 families) and La Capellanéa (50 families) in Huehuetenango. The communities were only provided plastic bags, ropes, barbed wire, trees, and technical assistance.

They have successfully reforested 50 hectares at about half the cost of the paid labor projects.

1. Communal Forests

This sub-activity will comprise the development of communal forests as well as the training of farmers in the forest management. Since 96% of the country's households depend on fuelwood, and well over 60% of the region's households are rural, a tremendous number of people could be substantially benefitted individually, while the country as a whole preserves forest resources, avoids land erosion, and improves water supplies.

Surveys will be carried out by INAFOR to identify appropriate sites, community interest in reforestation and the types of trees the beneficiaries prefer. Preference will be given to sites possessing irrigation and soil conservation infrastructure.

Prior to initiating the actual nursery activities, and throughout the period of the project, an intensive promotional campaign will be carried out to explain to the communities the importance to them of reforestation. Problems of erosion, siltation, resulting lack of water and decreased crop production will be discussed as well as the advantages of a well managed forest in terms of a dependable source of firewood, trees to sell and improved environment.

The trees will be grown and planted under INAFOR supervision, but all unskilled labor is to be provided, on a voluntary basis, by the beneficiary community. Voluntary labor will provide a lower cost project as well as avoid the jealousy that arises in a community when some members receive payment for reforestation work while others are not employed. If the beneficiaries are convinced of the benefit to them that the trees offer, paid labor will not be necessary. Conversely, if the beneficiaries are not convinced, the project may not succeed, with or without payment.

Despite the fact that the trees will be raised with voluntary labor, recipients will be charged a modest amount for each sapling desired for personal, as opposed to communal, use. A determination must be made of the types of tree seedlings which the small farmer will be willing to purchase and how much he would pay. Some cost must be charged so that the plantings are valued and protected. The fee, however, must not be too high so as to discourage purchases.

At least fourteen communal forests will be established, in separate communities, resulting in the reforestation

of a total of 200 hectares. TA and equipment will be supplied to carry out the promotional, nursery and tree planting activities, at a cost of US$200,000 in loan funds and the Quetzal equivalent of US$145,477 in GOG counterpart funds. These activities will benefit an estimated 800 farmers.

2. Fire Fighting

Wild fires have been identified as one of the major obstacles to regeneration of Guatemalan forests. They not only burn established trees but destroy the young seedlings that represent the future forests.

Under this sub-activity, 24 voluntary community brigades will be formed and equipped to supplement and assist INAFOR'S personnel in fire prevention and control. In addition, five INAFOR fire fighting brigades will be equipped and a fire prevention campaign will be initiated. These activities will be carried out in Regions I and V. This component is budgeted at US$120,000 in loan funds and the Quetzal equivalent of US$366,332 in GOG counterpart funds.

3. Prevention and Control of Arboreal Diseases and Insects

Arboreal diseases and insects are destroying thousands of acres of trees annually. For example, the Pine Borer (Dendroctonus sp) has destroyed over 93,135 hectares and is still spreading uncontrolled.

This sub-activity will provide funding for San Carlos University to develop a strategy to identify and control diseases and insects that attack trees. The strategy could be used as the basis for future activities funded by INAFOR, AID or another donor.

The study is budgeted at US$110,000 in loan funds and the Quetzal equivalent of US$11,000 in GOG counterpart funds.

4. Long- and Short-Term Training

This sub-activity is designed to prepare INAFOR's personnel at all levels to efficiently undertake the activities being embarked upon under the HADs project. While long-term training leading to bachelor's, Masters and perhaps PhDs will be financed, emphasis will be placed on short-term training of field level personnel in crucial areas directly related to HAD's activities, such as community development, project promotion and technical skills required for their jobs. Fifty-four INAFOR

employees will receive short-term training and four will receive masters level training, under this project.

As indicated under the DIGESA component, the respective advantages of third country training, in-country training by USAID funded TA or a mix is currently being studied.

This project will emphasize the training of INAFOR field level technicians in the HADs' regions to enable them to carry out inspections and monitor execution of forest managment plans for the communal forests developed under HADs. The advantage of this arrangement is that it assigns the operational role for management to the owners, with support and control from INAFOR.

This sub-activity is intended to support the other sub-activities in this project as well as future undertakings of INAFOR. It is budgeted for US$285,000 in grant funds and the Quetzal equivalent of US$61,220 in GOG counterpart funds.

III. Project Implementation and Budgetary Analysis.

See following tables.

CUADRO 1

PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
MINI RIEGO Y CONSERVACION DE SUELOS/DIGESA REGION IV
PERSONAL DE CONTRAPARTIDA

Numero	Titulo del Puesto	QUETZALES Salario anual	Prestaciones anuales	Total para 5 anos
	PERSONAL DE MINI RIEGO			
1	Ing.Agr./Coordinador	6,900.00	2,675.00	47,875.00
3	Peritos Agronomos	3,480.00	2,390.00	88,050.00
2	Supervisores	5,580.00	2,565.00	81,450.00
1	Topografo	3,480.00	2,390.00	29,350.00
15	Peones*	—	2,220.00	166,500.00
22	TOTAL	31,980.00	50,665.00	413,225.00
	PERSONAL DE CONSERVACION DE SUELOS			
1	Ing.Agr./Coordinador	6,900.00	2,675.00	47,875.00
3	Peritos Agronomos	3,480.00	2,390.00	88,050.00
2	Supervisores	5,580.00	2,565.00	81,450.00
1	Topografo	3,480.00	2,390.00	29,350.00
15	Peones*	—	2,220.00	166,500.00
6	Auxiliares	2,760.00	2,330.00	152,700.00
28	TOTAL	48,540.00	64,645.00	565,925.00
	PERSONAL DE LABORATORIO			
2	Ing.Ag./Encargado de Lab.	6,900.00	2,675.00	95,750.00
8	Tecnicos Laboratoristas	4,200.00	2,450.00	266,000.00
8	Auxiliares de Lab.	3,480.00	2,390.00	234,800.00
2	Secretaria	1,920.00	2,260.00	41,800.00
2	Peones	1,440.00	2,220.00	36,600.00
		79,080.00	53,030.00	674,950.00
50	GRAN TOTAL, Quetzales:	159,600.00	168,340.00	1,654,100.00
	GRAN TOTAL, USDolares:	63,840.00	67,336.00	661,640.00

*El prestamo cubrira el costo de los salarios nominales de este personal.

CUADRO 2

PROYECTO 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
PERSONAL POR PLANILLA/DIGESA REGION IV

Numero	Titulo del Puesto	Salario/dia	Total/mes	Total/Ampl.
	PERSONAL POR PLANILLA DE MINI RIEGO (Nuevos)			
8	Peon de Cuadrilla/Topgrf.	4.00	120.00	57,600.00
2	Plomero y Albanil	4.00	120.00	14,400.00
3	Dibujantes	4.00	120.00	21,600.00
1	Secretaria	4.00	120.00	7,200.00
	TOTAL		1,680.00	100,800.00
	PERSONAL POR PLANILLA DE CONSERVACION DE SUELOS			
9	Peon de Cuadrilla/Topgrf.	4.00	120.00	64,800.00
5	Promotores	4.00	120.00	36,000.00
1	Secretaria	4.00	120.00	7,200.00
			1,800.00	108,000.00
	PERSONAL POR PLANILLA DE LABORATORIOS			
2	Guardianes	4.00	120.00	14,400.00
	TOTAL		3,600.00	223,200.00

CUADRO 3

DESARROLLO AGRICOLA DEL ALTIPLANO, COMPONENTE FORESTAL/INAFOR
PERSONAL DE CONTRAPARTIDA PARA LA EJECUCION DE LA EXPANSION

ACTIVIDAD/TITULO	POSICIONES ANUALES 1987	1988	1989	1990	SALARIO MENSUAL (Q.)	PRESTA-CIONES/MES (Q.)
1. Manejo y Establecimiento de Bosques						
-Tecnico en Silvicultura y Manejo de Bosques	3	3	4	4	400.00	175.00
-Perito Agronomo II	2	4	4	4	250.00	175.00
-Viverista	1	1	2	1	290.00	175.00
-Guardarecursos Forest.	5	5	5	5	160.00	175.00
-Administracion	1	1	2	1	365.00	--
2. Combate y Prevencion de Incendios						
-Tecnico en Silvicultura y Manejo de Bosques.	2	2	3	3	400.00	175.00
-Guardarecursos Forest.	5	5	5	5	160.00	175.00
-Administracion	1	1	2	1	365.00	--
-Personal por planilla, Brigadas Contra-incendios	62	62	62	64	100.00	175.00
3. Identificacion y Control de Enfermedades Forestales						
-Supervision	1	1	2	1	550.00	--

CUADRO 4

DESARROLLO AGRICOLA DEL ALTIPLANO. COMPONENTE FORESTAL/INAFOR
VEHICULOS DE CONTRAPARTIDA DESIGNADOS A LA EXPANSION DEL PROGRAMA

TIPO DE VEHICULO/ COMPONENTE	COMBUSTIBLE ASIGNADO/MES	ESTADO GENERAL	PLACAS No.	MODELO
1. Manejo y Establecimiento de Bosques				
Pick-up, 1 Ton	60 galones	Bueno	O-15062	1979
Camion, 10 Ton	40 galones	Regular	O-15119	1979
Jeep	60 galones	[illegible]gular	O-9748	1972
Motocicleta 125cc	65 galones	Bueno	M-399938	1979
2. Combate y Prevencion de Incendios				
Pick-up, 1 Ton	40 galones	Bueno	O-15601	1980
Motocicleta 125cc	65 galones	Regular	M-39571	1980
Motocicleta 125cc	65 galones	Regular	M-31537	1980

CUADRO 5
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
MINI RIEGO Y CONSERVACION DE SUELOS/DIGESA REGION IV -Ampliacion

ACTIVIDAD/RUBRO (US$)	AÑOS 1987	1988	1989	1990	TOTAL (US$)
A. MINI-RIEGO					434,500
I. FONDO OPERATIVO (DIGESA)	30,540	25,410	34,670	43,880	134,500
1. SUMIN. Y EQ.	3,050	6,730	9,200	11,620	30,600
2. VEHICULOS	15,000	--	--	--	15,000
3. MOTOCICLETAS	4,000	--	--	--	4,000
4. SUMIN. de OF.	940	2,070	2,820	3,570	9,400
5. GASTOS ADMVOS.	7,550	16,610	22,650	28,690	75,500
II. FIDEICOMISO (BANDESA)					
1. EQUIPO Y MAT.	30,000	66,000	90,000	114,000	300,000
TOTAL	60,540	91,410	124,670	157,880	
B. CONSERVACION DE SUELOS					342,500
I. FONDO OPERATIVO (DIGESA)	47,800	24,320	34,680	35,700	142,500
1. SUMIN. Y EQ.	5,500	6,420	9,180	9,500	30,600
2. VEHICULOS	15,000	--	--	--	15,000
3. MOTOCICLETAS	12,000	--	--	--	12,000
4. SUMIN. de OF.	1,700	2,000	2,800	2,900	9,400
5. GASTOS ADMVOS.	13,600	15,900	22,700	23,300	75,500
II. FIDEICOMISO (BANDESA)					
1. PAGOS SOCIALES	36,000	42,000	60,000	62,000	200,000
TOTAL	83,800	66,320	94,680	97,700	
C. LABORATORIOS (REGIONES IV y VII)					130,000
1. VEHICULOS	15,000	--	--	--	15,000
2. MOTOCICLETAS	2,000	--	--	--	2,000
3. EQUIPO DE LAB.	31,500	31,500	--	--	63,000
4. MAT. y SUMIN.	9,500	13,500	13,500	13,500	50,000
TOTAL	58,000	45,000	13,500	13,500	
D. IMPREVISTOS					60,000
1. IMPREVISTOS COMPONENTE	12,000	16,000	16,000	16,000	60,000
TOTAL	12,000	16,000	16,000	16,000	
GRAN TOTAL	214,340	218,730	248,850	285,080	967,000

CUADRO 6

PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
EXPANSION FORESTAL/INAFOR

ACTIVIDAD/RUBRO (US$)	AÑOS 1987	1988	1989	1990	TOTAL (US$)
A. MANEJO Y ESTABLECIMIENTO DE BOSQUES					200,000
a. SUMIN. Y EQ.	8,832	12,144	15,456	18,768	55,200
b. VEHICULOS	55,000	—	—	—	55,000
c. MOTOCICLETAS	10,000	10,000	—	—	20,000
d. SUMIN. de OF.	6,400	8,800	11,200	13,600	40,000
e. GASTOS ADMVOS.	4,768	6,556	8,344	10,132	29,800
TOTAL	85,000	37,500	35,000	42,500	200,000
B. COMBATE Y PREVENCION DE INCEDIOS					120,000
a. SUMIN. Y EQ.	7,232	9,944	12,656	15,368	45,200
b. VEHICULOS	15,000	15,000	—	—	30,000
c. MOTOCICLETAS	—	10,000	—	—	10,000
d. SUMIN. de OF.	3,200	4,400	5,600	6,800	20,000
e. GASTOS ADMVOS.	2,368	3,256	4,144	5,032	14,800
TOTAL	27,800	42,600	22,400	27,200	120,000
C. IDENTIFICACION Y CONTROL DE ENFERMEDADS FORESTALES					110,000
a. CONTRATACION DE SERVICIOS TEC.					
-DIAGNOSTICO	20,000	20,000	20,000	—	60,000
-PLN de CONTROL	—	—	25,000	25,000	50,000
TOTAL	20,000	20,000	45,000	25,000	
D. IMPREVISTOS					103,000
a. IMPREVISTOS COMPONENTE	16,480	22,660	28,840	35,020	
TOTAL	16,480	22,660	28,840	35,020	103,000
GRAN TOTAL COMP.	149,280	122,760	131,240	129,720	533,000

CUADRO 7

PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
MINI RIEGO Y CONSERVACION DE SUELOS/DIGESA REGION IV -Ampliacion

COMPONENTE/RUBRO (US$)	FONDOS AID MX	FONDOS AID ML	FONDOS AID TOTAL	CONTRA-PARTIDA GOB.deGUA	TOTAL AMPLIACION (US$)
A. MINI-RIEGO	37,000	397,500	434,500	164,403	598,903
I. APOYO LOG./DIGESA	37,000	97,500	134,500	164,403	298,903
1. SUMIN. Y EQ.	18,000	12,600	30,600	--	30,600
2. VEHICULOS	15,000	--	15,000	--	15,000
3. MOTOCICLETAS	4,000	--	4,000	--	4,000
4. SUMIN. de OF.	--	9,400	9,400	6,000	15,400
5. GASTOS ADMVOS.	--	75,500	75,500	158,403	233,903
II. FIDEICOMISO/BANDESA	--	300,000	300,000	--	300,000
1. EQUIPO Y MAT.	--	300,000	300,000	--	300,000
B. CONS. DE SUELOS	45,000	297,500	342,500	222,938	565,438
I. APOYO LOG./DIGESA	45,000	97,500	142,500	222,938	365,438
1. SUMIN. Y EQ.	18,000	12,600	30,600	--	30,600
2. VEHICULOS	15,000	--	15,000	--	15,000
3. MOTOCICLETAS	12,000	--	12,000	--	12,000
4. SUMIN. de OF.	--	9,400	9,400	6,000	15,400
5. GASTOS ADMVOS.	--	75,500	75,500	216,938	292,438
II. FIDEICOMISO/BANDESA	--	200,000	200,000	--	200,000
1. PAGOS SOCIALES	--	200,000	200,000	--	200,000
C. LABORATORIOS (REGIONES IV y VII)	61,000	69,000	130,000	271,644	401,644
1. VEHICULOS	15,000	--	15,000	--	15,000
2. MOTOCICLETAS	2,000	--	2,000	--	2,000
3. EQUIPO DE LAB.	24,000	39,000	63,000	--	63,000
4. MAT. y SUMIN.	20,000	30,000	50,000	15,000	65,000
5. GASTOS ADMVOS	--	--	--	256,644	242,160
D. IMPREVISTOS	30,000	30,000	60,000	60,000	120,000
1. IMPREVISTOS COMPONENTE	30,000	30,000	60,000	60,000	120,000
GRAN TOTAL	173,000	794,000	967,000	718,985	1,685,985
Porcentajes:	17.89%	82.11%	100.00%		
			57.36%	42.64%	100.00%
Recursos Nuevos:	173,000	794,000	967,000	133,200	1,100,200

(Tasa de Cambio Estimada: US$1=Q3)

Los recursos nuevos del aporte de la contrapartida, se refieren a los gastos de bonificaciones, aguinaldos y seguro social para el personal

CUADRO 1

CUADRO 8

PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO - MINI RIEGO Y CONSERVACION DE SUELOS/DIGESA

ACTIVIDAD/RUBRO	AÑOS 1987		1988		1989		1990		TOTAL
(US$)	MX	ML	MX	ML	MX	ML	MX	ML	(US$)
A. MINI-RIEGO									334,500
I. FONDO OPERATIVO (DIGESA)	20,794	9,746	3,959	21,451	5,412	29,258	6,835	37,045	134,500
1. SUMIN. Y EQ.	1,794	1,256	3,959	2,771	5,412	3,789	6,835	4,785	30,600
2. VEHICULOS	15,000	—	—	—	—	—	—	—	15,000
3. MOTOCICLETAS	4,000	—	—	—	—	—	—	—	4,000
4. SUMIN. de OF.	—	940	—	2,070	—	2,820	—	3,570	9,400
5. GASTOS ADMVOS.	—	7,550	—	16,610	—	22,650	—	28,690	75,500
II. FIDEICOMISO (BANDESA)									
1. EQUIPO Y MAT.	—	36,000	—	42,000	—	60,000	—	62,000	200,000
TOTAL	20,794	45,746	3,959	63,451	5,412	89,258	6,835	99,045	
B. CONSERVACION DE SUELOS									442,500
I. FONDO OPERATIVO (DIGESA)	28,794	16,556	3,959	20,671	5,412	29,288	6,835	30,985	142,500
1. SUMIN. Y EQ.	1,794	1,256	3,959	2,771	5,412	3,789	6,835	4,785	30,600
2. VEHICULOS	15,000	—	—	—	—	—	—	—	15,000
3. MOTOCICLETAS	12,000	—	—	—	—	—	—	—	12,000
4. SUMIN. de OF.	—	1,700	—	2,000	—	2,800	—	2,900	9,400
5. GASTOS ADMVOS.	—	13,600	—	15,900	—	22,700	—	23,300	75,500
II. FIDEICOMISO (BANDESA)									
1. PAGOS SOCIALES	—	30,000	—	66,000	—	90,000	—	114,000	300,000
TOTAL	28,794	46,556	3,959	86,671	5,412	119,288	6,835	144,985	
C. LABORATORIOS (REGIONES IV y VII)									130,000
1. VEHICULOS	15,000	—	—	—	—	—	—	—	15,000
2. MOTOCICLETAS	2,000	—	—	—	—	—	—	—	2,000
3. EQUIPO DE LAB.	12,000	19,500	12,000	19,500	—	—	—	—	63,000
4. MAT. y SUMIN.	3,800	5,700	5,400	8,100	5,400	8,100	5,400	8,100	50,000
TOTAL	32,800 69,000	25,200 61,000	17,400 130,000	27,600	5,400	8,100	5,400	8,100	
D. IMPREVISTOS									60,000
1. IMPREVISTOS COMPONENTE	6,000	6,000	8,000	8,000	8,000	8,000	8,000	8,000	60,000
TOTAL	6,000	6,000	8,000	8,000	8,000	8,000	8,000	8,000	
GRAN TOTAL	88,358	123,502	33,318	185,722	24,224	224,646	27,071	260,129	967,000

CUADRO 9
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
AMPLIACION/INAFOR-DIGESA/DESEMBOLSOS DE CONTRAPARTIDA POR AND

ACTIVIDAD/RUBRO (US$)	AÑOS 1987	1988	1989	1990	TOTAL (US$)
DIGESA					
A. MINI-RIEGO					164,403
1.SUMIN. de OFICINA	1,500	1,500	1,500	1,500	6,000
2.GASTOS ADMVOS.*	36,502	38,981	40,634	42,287	158,403
B. CONSERVACION DE SUELOS					222,938
1.SUMIN. de OFICINA	1,500	1,500	1,500	1,500	6,000
2.GASTOS ADMVOS.*	52,254	53,103	55,649	55,932	216,938
C. LABORATORIOS					271,644
1.SUMIN. de OFICINA	3,750	3,750	3,750	3,750	15,000
2.GASTOS ADMVOS.	62,261	64,794	64,794	64,794	256,644
D. IMPREVISTOS	15,000	15,000	15,000	15,000	60,000
TOTAL/DIGESA:	172,766	178,628	182,827	184,763	718,985
INAFOR					
A. MANEJO Y ESTABLECIMIENTO DE BOSQUES					145,477
1.SUMIN. de OFICINA	7,792	7,792	7,792	7,792	31,167
2.GASTOS ADMVOS.	27,236	28,130	29,025	29,919	114,310
B. COMBATE Y PREVENCION DE INCENDIOS					366,332
1.SUMIN. de OFICINA	6,417	6,417	6,417	6,417	25,667
2.GASTOS ADMVOS.	84,395	84,909	85,423	85,937	340,665
C. IDENTIFICACION Y CONTROL DE ENFERMEDADES					
1.SUPERVISION	2,750	2,750	2,750	2,750	11,000
TOTAL/INAFOR	128,590	129,998	131,407	132,815	522,809
GRAN TOTAL:	301,356	308,626	314,234	317,578	1,241,794
*RECURSOS NUEVOS:					
Presta.Pers.Planilla:	27,750	27,750	27,750	27,750	111,000

CUADRO 10

PROYECTO AID 520-T-037. DESARROLLO AGRICOLA DEL ALTIPLANO
EXPANSION FORESTAL/INAFOR

ACTIVIDAD/RUBRO (US$)	FONDOS AID MX	FONDOS AID ML	FONDOS AID TOTAL	CONTRA-PARTIDA GOB.deGUA	TOTAL AMPLIACION (US$)
A. MANEJO Y ESTABLECIMIENTO DE BOSQUES					
a. SUMIN. Y EQ.	15,000	40,200	55,200	—	55,200
b. VEHICULOS	55,000	—	55,000	—	55,000
c. MOTOCICLETAS	20,000	—	20,000	—	20,000
d. SUMIN. de OF.	—	40,000	40,000	31,167	71,167
e. GASTOS ADMVOS.	—	29,800	29,800	114,310	144,110
TOTAL	90,000	110,000	200,000	145,477	345,477
B. COMBATE Y PREVENCION DE INCEDIOS					
a. SUMIN. Y EQ.	12,200	33,000	45,200	—	45,200
b. VEHICULOS	30,000	—	30,000	—	30,000
c. MOTOCICLETAS	10,000	—	10,000	—	10,000
d. SUMIN. de OF.	—	20,000	20,000	25,667	45,667
e. GASTOS ADMVOS.	—	14,800	14,800	340,665	355,465
TOTAL	52,200	67,800	120,000	366,332	486,332
C. IDENTIFICACION Y CONTROL DE ENFERMEDADS FORESTALES					
a. CONTRATACION DE SERVICIOS TEC.					
-DIAGNOSTICO	—	60,000	60,000	—	60,000
-PLN de CONTROL	—	50,000	50,000	—	50,000
-GASTOS AMVOS/SUP.	—	—	—	11,000	11,000
TOTAL	—	110,000	110,000	11,000	121,000
D. IMPREVISTOS					
a. IMPREVISTOS COMPONENTE	50,000	53,000	103,000	—	103,000
TOTAL	50,000	53,000	103,000	—	103,000
GRAN TOTAL COMP.	192,200	340,800	533,000	522,808	1,055,808
Porcentajes:	36.06%	63.94%	100.00%		
			50.48%	49.52%	100.00%
(Tasa de Cambio Estimada: US$1=Q3)					
Recursos nuevos	192,200	340,800	533,000	—	533,000

CUADRO II
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
EXPANSION FORESTAL/INAFOR

ACTIVIDAD/RUBRO	AÑOS								TOTAL
	1987		1988		1989		1990		
(US$)	MX	ML	MX	ML	MX	ML	MX	ML	(US$)
A. MANEJO Y ESTABLECIMIENTO DE BOSQUES									200,000
TOTALES COMPONENTE:	67,400	17,600	13,300	24,200	4,200	30,800	5,100	37,400	
1. SUMIN. Y EQ.	2,400	6,432	3,300	8,844	4,200	11,256	5,100	13,668	55,200
2. VEHICULOS	55,000	—	—	—	—	—	—	—	55,000
3. MOTOCICLETAS	10,000	—	10,000	—	—	—	—	—	20,000
4. SUMIN. de OF.	—	6,400	—	8,800	—	11,200	—	13,600	40,000
5. GASTOS ADMVOS.	—	4,768	—	6,556	—	8,344	—	10,132	29,800
B. COMBATE Y PREVENCION DE INCENDIOS									120,000
TOTALES COMPONENTE:	31,952	10,848	12,684	14,916	3,416	18,984	4,148	23,052	
1. SUMIN. Y EQ.	1,952	5,280	2,684	7,260	3,416	9,240	4,148	11,220	45,200
2. VEHICULOS	30,000	—	—	—	—	—	—	—	30,000
3. MOTOCICLETAS	—	—	10,000	—	—	—	—	—	10,000
4. SUMIN. de OF.	—	3,200	—	4,400	—	5,600	—	6,800	20,000
5. GASTOS ADMVOS.	—	2,368	—	3,256	—	4,144	—	5,032	14,800
C. IDENTIFICACION Y CONTROL DE ENFERMEDADES FORESTALES									110,000
1. CONTRATACION DE SERVICIOS TECNICOS	—	20,000	—	20,000	—	45,000	—	25,000	110,000
D. IMPREVISTOS	8,000	8,480	11,000	11,660	14,000	14,840	17,000	18,020	103,000
TOTAL	107,352	56,928	36,984	70,776	21,616	109,624	26,248	103,472	533,000

CUADRO 12
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
COMPONENTE DE CAPACITACION/DIGESA/DONACION

CURSO	No.PART.	DURACION (Meses)	COSTO*/ PARTICIP.	TOTAL
-Administracion de Proyectos Agric.	1	3	5,000	5,000
-Control y Seguimiento de Proyectos	1	3	5,000	5,000
-Evaluacion y Preparacion de Proy.	1	3	5,000	5,000
-Produccion Agricola bajo Riego	3	0.5	2,000	6,000
-Extension y Capacitacion Agricolas	2	3	5,000	10,000
-Manejo y Admon.de Unidades de Riego	3	3	5,000	15,000
-Manejo y Conservacion de Suelos	2	3	4,500	9,000
-Aprovechamiento Integral de Productos Agropecuarios	2	3	5,000	10,000
-Produccion y Comercializacion de Deciduos	2	3	7,000	14,000
-Produccion y Comercializacion de Hortalizas	3	3	7,000	21,000
TOTAL	20	27.5 meses/tec		100,000

*Costo Estimado.

RO 13
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
COMPONENTE DE CAPACITACION/DIGESA/DONACION
CRONOGRAMA DE ASISTENCIA A CURSOS

CURSO	1987 1/4	2/4	3/4	4/4	1988 1/4	2/4	3/4	4/4
inistracion de Proyectos Agric.								
rol y Seguimiento de Proyectos								
luacion y Preparacion de Proy.								
uccion Agricola bajo Riego								
nsion y Capacitacion Agricolas								
jo y Admon.de Unidades de Riego								
jo y Conservacion de Suelos								
vechamiento Integral de uctos Agropecuarios								
uccion y Comercializacion de duos								
uccion y Comercializacion de alizas								

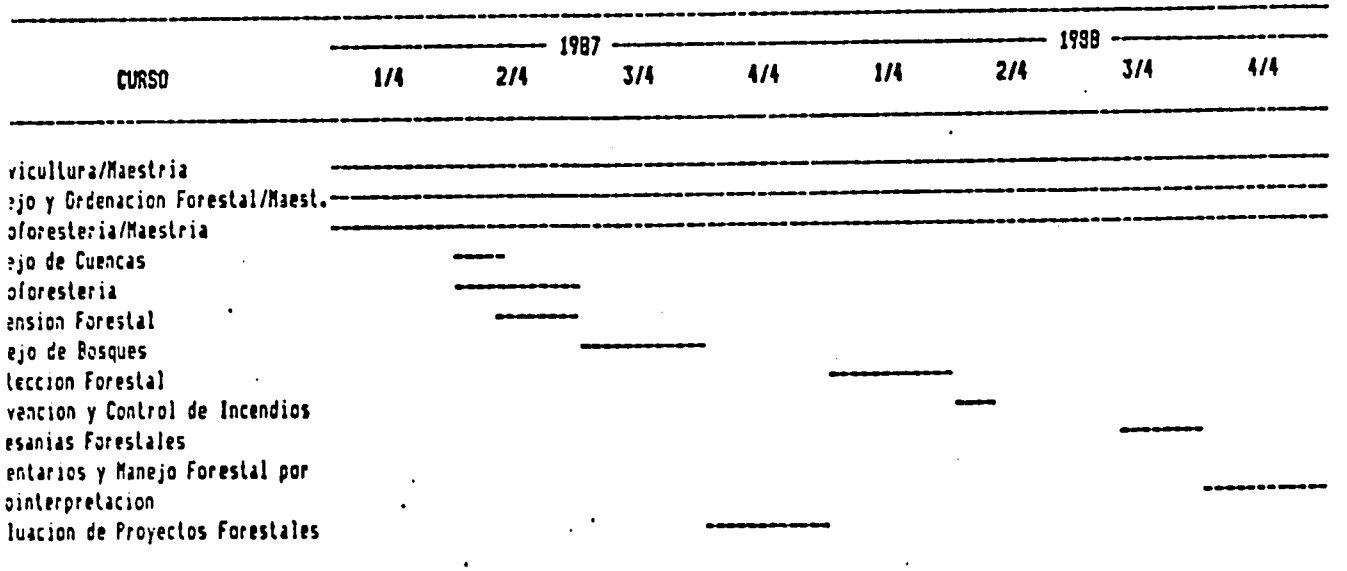
= 1 mes

CUADRO 14
PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
COMPONENTE DE CAPACITACION/INAFOR/DONACION

CURSO	No.PART.	DURACION (Meses)	COSTO/ PARTICIP.	TOTAL
-Silvicultura/Maestria	1	24	20,000	20,000
-Manejo y Ordenacion Forestal/Maest.	1	24	20,000	20,000
-Agroforesteria/Maestria	1	24	20,000	20,000
-Manejo de Cuencas	1	1.25	3,000	3,000
-Agroforesteria	4	3	9,000	36,000
-Extension Forestal	4	2	3,000	12,000
-Manejo de Bosques	16	3	4,688	75,000
-Proteccion Forestal	10	3	4,500	45,000
-Prevencion y Control de Incendios	10	1	1,500	15,000
-Artesanias Forestales	2	2	3,000	6,000
-Inventarios y Manejo Forestal por Fotointerpretacion	4	3	4,500	18,000
-Evaluacion de Proyectos Forestales	3	3	5,000	15,000
TOTAL	57	93.25 meses/tec		285,000

D 15

PROYECTO AID 520-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
COMPONENTE DE CAPACITACION/INAFOR/DONACION
CRONOGRAMA DE ASISTENCIA A CURSOS



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PROYECTO AID SCL-T-037, DESARROLLO AGRICOLA DEL ALTIPLANO
COMPONENTE DE EVALUACIONES Y AUDITORIAS EXTERNAS E IMPREVISTOS/DIGESA-INAFOR/DONACION
CRONOGRAMA DE DESARROLLO*

ACTIVIDAD/ COSTO	1987				1988				1989				1990			
	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4
'ALUACIONES INTERMEDIAS																
sto por Evaluacion (US$'000):	24			19					19							
b-total: US$62,000																
ALUACION FINAL																
sto de Evaluacion (US$'000):																35
-total: US$35,000																
)ITORIAS INTERMEDIAS																
sto por Auditoria (US$'000):	7						5					5				
-total: US$17,000																
)ITORIA FINAL																
to de Auditoria (US$'000):																
-total: US$26,000																26
:TRIBUCION TOTAL DE FONDOS																
A ESTE COMPONENTE (US$'000)	31			19			5		19			5				61
AL x AÑO EV.Y AUD.(US$'000):	1,987:	50			1,988:	5			1,989:	24			1,990:	61		
'REVISTOS (US$'000):																
AL x AÑO IMPREVISTOS:	1,987:18.75				1,988:18.75				1,989:18.75				1,990:18.75			
L EVALUACIONES/AUDITORIAS(US$'000)		140														
L IMPREVISTOS (US$'000)		75														
TOTAL (US$'000):		215														

cronograma indica el periodo mas probable de ejecucion de las actividades, en vez de el periodo efectivo de ejecucion.

Desarrollo Agrícola del Altiplano
Highlands Agricultural Development
Fondos Adicionales de AID/GdeG para el Componente del Programa de Caminos de Acceso 1/
Additional AID/GOG Resources for the Access Roads Component Program
(000)

Renglón Item	1er. Año First Year AID 1987 FX $	1er. Año First Year AID 1987 LC $	Contrapartida Gobierno GOG Counterpart Q	2do. Año Second Year AID 1988 FX $	2do. Año Second Year AID 1988 LC $	Contrapartida Gobierno GOG Counterpart Q	3er. Año Third Year AID 1989 FX $	3er. Año Third Year AID 1989 LC $	Contrapartida Gobierno GOG Counterpart Q	AID Total FX $	AID Total LC $	AID Total Total $	Contrapart. Adicional Gobierno Additional GOG Counterpart Q	Q = $ Eq*
1. Administración: Administration			880			880			880				2,640	880
2. Artículos/ Commodities														
a. Equipo/ Equipment	731									731		731		
b. Repuestos/ Spare Parts														
c. Llantas/ Tires					84			84				168	56	
d. Herramientas Hand Tools		83	42		99	50		115	59		297	297	151	50
e. Materiales de Construcción/ Construction Materials		69	35		82	42	-	95	48		246	246	125	42
i. Imprevistos Contingencies														
3. Otros Gastos/ Other Expenses														
a. Mano de Obra/ Labor														

Renglón Item	1er. Año First Year AID 1987 FX $	1er. Año First Year AID 1987 LC $	Contrapartida Gobierno GOG Counterpart Q	2do. Año Second Year AID 1988 FX $	2do. Año Second Year AID 1988 LC $	Contrapartida Gobierno GOG Counterpart Q	3er. Año Third Year AID 1989 FX $	3er. Año Third Year AID 1989 LC $	Contrapartida Gobierno GOG Counterpart Q	AID Total FX $	AID Total LC $	AID Total Total $	Contrapart. Adicional Gobierno Additional GOG Counterpart Q	Contrapart. Adicional Gobierno Additional GOG Counterpart Q = $ Eq.*
b. Combustibles y Lubricantes/ Fuels and Lubricants		57	181		84	286		85	286		226	226	753	251
c. Adiestramiento/ Training														
d. Imprevistos/Contingencies														
Totales/Totals	731	209	1,138		265	1,342		295	1,357	731	769	1,500	3,837 1/	1,279

704°C

* Exchange rate estimated at/Tasa de cambio estimada: Q3.00 = $1.00

1/ Incluye Q3,367,000 del Presupuesto regular de la DGC. El saldo de estos fondos (Q450,000) constituye recursos nuevos que aportará el Gobierno de Guatemala para cubrir el IVA y gastos de inflación/Includes Q3,367,000 from the regular budget appropriations for execution of DGC. The balance (Q450,000) constitutes new resources from the GOG counterpart to cover inflation and IVA expenses.

CUADRO 18

HIGHLANDS AGRICULTURAL DEVELOPMENT PROJECT/
DESARROLLO AGRICOLA DEL ALTIPLANO

Summary Financial Plan for Supplementary AID/GOG Funds/
(Resumen del Plan Financiero de los Fondos Adicionales de AID/GdG)

	USAID Foreign Exchange/ (Moneda Extranj.)	Local Currency/ (Moneda Local)	Total	GOG Counterpart/ Contrapartida GOG $*	Total
I. Loan (Préstamo)					
Soil and Water Management (Administración de Suelos y Agua	173	794	967	718	1,686
Forestry (Reforestación)	192	341	533	523	1,056
Access Roads (Caminos de Acceso)	731	769	1,500	1,279	2,779
Subtotal	1,096	1,904	3,000	2,520	5,521
II. Grant (Donación)	600		600		600
Total	1,696	1,904	3,600	2,520	6,121

$* Dollar equivalent. Exchange rate estimated Q3.00 to $1.00/Dolar equivalente. Tasa de Cambio estimada en Q3.00 por $1.00.

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ADMINISTRATIVE ANALYSIS:

A. DIGESA, Region IV:

DIGESA is implementing small scale irrigation and soil conservation activities, under projects 520-T-026 and 520-T-034, using technical assistance teams in Regions I, II, V, VI and VII. In so doing, it has gained a great deal of experience in the promotion, organization, design and construction of these activities. This current supplement will increase the funds in BANDESA for credit to beneficiaries of irrigation systems in the regions already covered by this project, as well as supplying Region IV with the credit, materials and equipment to enable DIOGESA to provide technical assistance in irrigation and soil conservation.

DIGESA's Region IV headquarters are located in Mazatenango, the capital city of the Department of Suchitepequez. There are three sub-regional offices: two in the capital city of the Departments of Escuintla and Retalhuleu and the other in Tiquisate, Escuintla. The main activities of DIGESA's Region IV are regional administration, technical assistance and agricultural promotion, production and processing of agricultural products (nursery plants and seeds) and irrigation and drainage technical assistance.

Region IV recieves aproximately 14% of BANDESA's total budget, at the national level (for comparison purposes DIGESA's Region I recieves 18%, which represents the highest regional budget for DIGESA).

In 1986 Region IV recieved Q1,310,505, of which Q163,274 is earmarked for irrigation and drainage activities. This amount is distributed for the administration and technical assistance of three irrigation systems located in the Departments of San Marcos, Nicá, Catarina y La Blanca. These systems reach 392 beneficiaries and cover 2,150 hectares. They are supported by the irrigation technical assistance teams that will undertake the add-on's activities.

This region is capable of providing the necessary physical and financial support to the implementation of the add-on's activities. The personnel assigned to this extension is summarized in Tables 1 and 2. Region IV must, however, establish a budget component to cover the loan and grant funds.

B. INAFOR, Region I:

This extension will increase the funds assigned to the HADs Forestry Component, emphasising technical assistance and training in order to prepare INAFOR to implement larger reforestation projects

in the future, as well as the current HADs activities. The upgrading of INAFOR goes hand-in-hand with the development of a consistent, long-term reforestation policy. This policy is crucial if Guatemala is to prevent its massive deforestation from becoming an irreversible situation, such as Haiti's.

While some TA and training functions are carried out by INAFOR's central office, all Region I field activities are implemented by that Regional office. That office has the highest regional budget in INAFOR: A total of Q449,486 distributed as follows - 32% for regional administration; 33% for forest management and usage; 30% for reforestation and, 5% for national parks and wild life.

The Regional Office is located in Quezaltenango, and has under its supervision 6 sub-regions, with independent budgets. The sub-regions are located in: Quezaltenango, Huehuetenango, Santa Cruz del Quiché, Totonicapán, Sololá and San Marcos.

Region I's existing personnel is sufficient in number and technical capacity to handle the additional activities foreseen. Furthermore, it is expected that the forestry advisor contracted during the Project's initial phase will continue to support the implementation of these activities. Much of the design of this extension's activities was derived from his recommendations, based on his experience with the the pilot component. Tables 3 and 4 provide the counterpart personnel and equipment that will support this extension.

C. General Bureau of Roads:

Ministry of Communications, Transportation and Public Works

The Ministry of Communications, Transportation and Public Works (MCTOP) is responsible for construction, operation, and maintenance of all airports, seaports, public buildings, post offices, telecommunications, highways, rural roads, and for the management and regulation of public transportation.

The Central Ministry Office makes general policy decisions, leaving day to day management to various general directorates.

General Directorate of Roads (DGC)

The General Directorate of Roads (Dirección General de Caminos - DGC) is a dependency of MCTOP and is responsible for the planning, design, construction, and maintenance of all national roads and bridges. The DGC is presently divided into six departments: (1) Director's Office, (2) Design, (3) Construction, (4) Maintenance, (5) Finance, and (6) Administration. The Construction Department

has the responsibility for supervising all construction projects by contract and force account. The Maintenance Division has the responsibility for maintaining all primary (paved), secondary and terciary dirt roads.

To implement the previous pilot access roads program under AID Project 520-0233, the Construction Department was expanded to include an access roads section with additional personnel responsible for the execution of all activities related to labor-intensive access roads construction and maintenance.

Rural Roads Program

Within the Construction Department, the access roads program has a General Coordinator who is responsible for supervising all aspects of the labor-intensive construction and maintenance program. The program is implemented by the six regional access roads construction offices and two Maintenance Centers recently established under Project 520-0274.

The General Coordinator is in charge of coordinating all administrative activities related to the program including the provision of logistical support for the supply of construction and maintenance materials, hand tools, and other requirements of the regional offices and Maintenance Centers. In conjunction with the regional offices and centers, the General Coordinator also establishes the basis for the selection and priorization of access roads for annual implementation plans.

The two recent created Maintenance Centers are responsible for the implementation of the access roads maintenance activities at the regional level. The Centers are also responsible for the preliminary screening for selection, cost estimates, and socio-economic analysis of each access road which is a candidate to receive maintenance, prior to the final selection by the General Coordinator.

Each Maintenance Center is headed by a resident civil engineer/administrator who is responsible for the technical and administrative management of the maintenance program activities in each three regional offices of construction. The Centers are located within the Construction Project area. The Maintenance Centers are partially supported by the regional offices which are staffed by 70 employees including technicians, operators drivers, social worker and foremen.

The technical and administrative infrastructure for the Access Roads Maintenance Project is in place; with more than 16 employees including technicians and administrators, therefore, no increase in professional or administrative personnel is required to implement the proposed Project.

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A. Financial Plan:

The total budget of this extension which will be obligated with FY 1986 funds, is US$3,000,000 of loan funds and US$600,000 of grant funds, in addition to the Quetzal equivalent of US$2,520,794 of counterpart funds. GOG counterpart resources will include US$2,409,794 of existing and US$111,000 of new resources. With these additional funds the new LOP funding is $24,407,000 with US$15,600,000 being AID funding.

Detailed budgets by component are provided in Tables 5-11, with a summary budget appearing in Table 18. Project expenditures by fiscal year are provided in Tables 5, 6, 8, 9, 11 and 17.

B. Methods of Implementation and Training

Vehicles laboratory equipment and some other goods and services will be direct purchases by AID using RFPs or Purchase Orders. The balance will be contracted by the GOG following established procurement and contracting regulations. The planned breakdown is shown below.

Element	Method of Implementation	Method of Financing	Amount
I. Vehicles	USAID Direct Procurement (RFP)	Direct Payment	794,000
II. Laboratory Equipment	USAID Direct Procurement (RFP)	Direct Payment	44,000
III. All Other Activities	GOG Procurement/HC Contracting	Direct Reimbursement (Advances)	1,000,000
	USAID Direct Procurement (RFP and Purchase order)	Direct Payment	1,659,000
IV. Contingencies	N/A	N/A	103,000
Total			3,600,000

C. Audit

Annual audit coverage meeting AID requirements has been provided for utilizing project funding as shown in Table 16.

ANNEX III

ENVIRONMENTAL ANALYSIS

The original IIE is still valid for the project as there are no new activities being undertaken that will effect the environment, only an extension of on-going activities.

ECONOMIC ANALYSIS:

INTRODUCTION

This amendment to the Highlands Agricultural Development Project still has as its goal to increase agricultural productivity of rural Guatemalans living in the project area by improving their productive resource base. The purpose of the economic analysis of this development project, as is usually the case, is to ascertain whether the project will yield sufficient returns to make it a desirable investment of scarce resources. Because of limited baseline data, a modification to the benefit-cost calculus will be utilized. Assumptions have been made about the impact of the project. These assumptions were used to generate estimated benefits due to the project; the present discounted value of the project's benefits and costs was then compared to obtain a benefit-cost ratio. Based on the following benefit-cost analysis which yields a benefit-cost ratio greater than one, this project appears to be economically feasible.

Project costs, by component, are listed below. This listing is followed by a brief discussion of each component and the benefits which are likely to arise as a result of the project. The conclusions of the benefit-cost analysis for this project are then discussed.

COSTS

Project costs under this amendment will total $6,120,794, of which USAID will provide $3,600,000 in the form of loan ($3,000,000) and grant ($600,000) funds. The Government of Guatemala will provide $2,520,794 of counterpart funds. These costs are spread out over three components. The cost of the first of the three components, Rural Roads Maintenance, will be $2,779,000. This will be used to fund the purchase of 24 dumptrucks, fuel, handtools, lubricants, labor costs and construction materials. The second component, Soil and Water Management, will be administered by DIGESA and will cost $1,686,000. The funds will be used to expand the TA and credit assistance, for irrigation and soil conservation, provided under the second amendment in regions II, VI and VII, and finance the initiation of these activities in Region IV. The cost of the final component, Reforestation, will be $1,056,000. In addition to promoting reforestation activities in several areas, this component also proposes to develop and expand INAFOR's capabilities and activities. This will occur primarily through providing training to INAFOR employees and materials that will make their extension work more effective. In addition to the above there is a US$600,000 grant which will finance training, audits and evaluations.

Economic cost differs from the above listed financial cost because local unskilled labor has an economic opportunity cost which must be charged to the project even though it is not paid for under the project due to its volunteer nature.

BENEFITS

Rural Road Maintenance

This component of the project will focus on maintaining 128 kilometers of existing rural access roads. Two quantifiable economic benefits attributable to this component are: 1) the present level of economic activity along the roads which will be preserved by the project, and 2) the rate at which the present volume of economic activity will be able to grow over the five-year life of the project. In the absense of this road maintenance it is assumed that not only would the economic growth not occur along the roads in question, but also that the present level of economic activity would degrade at some rate over the next five years.

Based on the original HAD's analysis, it was calculated that approximately 13,000 families in the Highlands would be affected by the maintenance of these additional 105 kilometers. Due to the relatively small number of kilometers of roads which will be maintained under this component, it was assumed that a large proportion of the total would be included from the beginning. Thus, the overall weighted average of families which would receive these benefits throughout the project life is high at 9,900. Based on an estimated annual rural family income of U.S. $594 (see Annex 6), it was estimated that in the absence of the project, a decrease of 20 percent in income would occur. This, in conjunction with the benefits generated by the Soil and Water Management Component, provides an acceptable economic return for the overall project.

Several other benefits have been attributed to projects of this type. Abandoned land has been brought back into production; the increased ease of transport has allowed for access to municipal markets where prices are higher; emigration has declined due to increased employment opportunities on the local level; there has been increased access to government services such as agricultural extension and forestry services and medical care; savings in labor on the household level have occured due to better transport. Other economic benefits which may be maintained by this component are increased income for transporters and lower prices to consumers. Note also that the distribution of the benefits would probably weigh more heavily on small, relatively poor farmers as they would be the major recipients of these benefits.

Soil and Water Management

The objective of this project component is to raise the incomes of the 10,000 families is the target group by increasing the value of their farm production. Terracing of some 700 hectares and small-scale irrigation systems for some 675 farm families should bring about a substantial increase in income. This will make possible multi-cropping and a production mix less weighted towards subsistence crops and more heavily weighted toward cash crops such as vegetables.

For the analysis, it was assumed that the farm families in the target group would gradually be incorporated into the project over its five-year life, and would gradually reach a total of 10,000 by the fourth year of project. Due to the interrelated nature of the two sub-components, Mini-Riego and Terracing, it was conservatively estimated that all of the families affected by the new irrigation systems would fall under the total beneficiaries (10,000) estimated for the terracing subcomponent. Results of the Economic Evaluation of the Small Farmer Development Project indicated that irrigation alone increased income by 50 percent. Thus, a small proportion of the farm families (growing to 675 by the end of project) were assumed to obtain an increase in income of 50 percent as a result of the project. The remaining of the original 10,000, which were assumed to benefit from terracing only, were assumed to obtain an increase in income of only 10 percent. This is probably a very conservative estimate in light of the results of the above mentioned evaluation which also found that the use of terracing alone without irrigation caused an increase in the yield of traditional crops of 75 percent and in vegetables of 35 percent. (The author pointed out that these were very low estimates, thus the benefits are likely to be understated.) In combination with the benefits derived from the Rural Roads Maintenance Component listed above, this component appears to generate sufficient economic benefits to make the project acceptable from an economic standpoint.

In addition to the direct benefit of higher incomes, there are many others which would arise under a component of this type. The more efficient use of land and water resources would mean that there would be less hillside erosion in the areas under cultivation using this technique. This technique also promotes the prevention of fertilizer and pesticide runoff with rain, thus contributing to higher yields. Similar projects have also seen the introduction of multicropping and a decreased risk of crop failure due to the lack of water at crucial times. This system would increase the flexibility of sowing and harvest times which would enhance the farmers' ability to take advantage of shifts in prices and other market conditions.

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Reforestation

This component is composed of five sub-activities: 1) forest development and management, 2) fire control, 3) control and identification of tree diseases, 4) long- and short-term training, and 5) institutional development of INAFOR. Expected economic benefits arising under this component would be higher income levels among owners of forests under the project. The current yield on forest resources under the project should improve in the short-run due to more informed management techniques regarding additional markets for thinnings and toppings. In the long-run, the improved management techniques should further increase the yield per hectare. Another positive effect beyond that of increased income would be on foreign exchange. As the volume of local wood and paper products increases, there should be a substitution effect away from some of the importation of these products. Because of Guatemala's current balance of payments problems, this substitution should have a positive effect on the economy. Another benefit in this category is the positive externality of a decline in soil erosion, particularly where this component works in conjunction with the soil conservation component. A more specific analysis is not possible because the baseline date relating to reforestation in Guatemala is limited at this time.

CONCLUSION

As is shown in the economic analysis in Appendix 6, this project yields benefits over a five-year project life which slightly exceed the project's costs, as is indicated by the benefit-cost ratio of 1.06. It should be noted that the assumptions used for the analysis are very conservative for the most part and thus it is highly likely that the economic benefits of the project are understated. Based on the analysis, this project is an economically acceptable use of funds.

ASSUMPTIONS

1. For the analysis, quetzal amounts were converted into U.S. dollars at a rate of 3 quetzals to 1 dollar.

2. A discount rate of 15 percent was used throughout the five-year period under analysis. This lenth of time was used for the analysis to better capture the benefits arising under the project.

3. The economic cost of the project differs from its financial cost due to the pricing method used for labor. Each day of unskilled labor (jornal) was shadow priced at Q2.5 which is slightly more than 75 percent of the urban minimum wage of Q3.2.

4. Recurrent costs, where used, are assumed to be equivalent to the annual cost under the last funded year of the project.

5. For the Rural Road Maintenance Component, it was assumed that a weighted average of 9,900 families would share in the benefit of the 128 kilometers which will maintained over the LOP. Another assumption was that these families' income would remain equal in the presence of the project, but would decline by 20 percent if the roads they currently use were not maintained. Based on similar project results, this appears to be a reasonable assumption.

6. There are several assumptions relating to the Soil and Water Management Component used in this analysis. Based on information from the original Highlands Agricultural Development Project, the opportunity cost of 670 jornales per irrigation system was added to financial cost; an average of 25 families per system was used. For each hectare of land terraced, the project was charged 90 jornales, which is what is estimated to be the additional amount of labor required to terrace land versus regular preparation.

7. Benefits were calculated based on changes in family income that are likely to occur as a result of the project. Rural family income was obtained by using 1985 GDP (Q11,023,000) and population (8,042,000) figures from the IMF, and an income distribution table (Table 4) provided in the FY 1986 CDSS for Guatemala. This table, based on data from the IDB and SIECA states that 50 percent of the population in Guatemala receives only 13 percent of national income. The average size of a rural family was conservatively estimated to be 5. Using the above information, per capita GDP for the poor in Guatemala for 1985 was calculated to be Q356.40, and family income to be Q1,782 or U.S. $594.

8. Under the Soil and Water Management Component, it was assumed that the number of families benefitting from the project would gradually reach a total of 10,000 (as more and more families were affected.) Due to the interrelated nature of the two subcomponents, Mini-Riego and Terracing, it was conservatively estimated that all of the families affected by the new irrigation systems would fall under the total beneficiaries estimated for the terracing subcomponent. Results of the Economic Evaluation of the Small Farmer Development Project indicated that irrigation alone increased income by 50 percent. Thus, a small proportion of the farm families (growing to 675 by the end of project) were assumed to obtain an increase in income of 50 percent as a result of the project. The remaining of the original 10,000, which were assumed to benefit from terracing only, were assumed to obtain

an increase in income of only 10 percent. This is probably a very conservative estimate in light of the results of the above mentioned evaluation which found that the use of terracing alone without irrigation caused an increase in the yield of traditional crops of 75 percent and in vegetables of 35 percent.

9. Due to the limited baseline data of quantifiable benefits to be obtained from reforestation, there were no benefits attributed to reforestation included in the benefit analysis for this project. Note, however, that costs under the Reforestation Component are included.

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S 6 (2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B.1 applies to all projects funded with Development Assistance Funds, B.2 applies to projects funded with Development Assistance loans, and B.3 applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? — Yes, Attached

HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT? — Yes

A. GENERAL CRITERIA FOR PROJECT

1. FY 1982 Appropriation Act Sec. 523; FAA Sec. 634 A; Sec. 653 (b).

   (a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project;

   This project amendment was not presented in the Mission's FY 86 or 87 Congressional Presentation. A Congressional Notification was submitted to Congress on 6/12 and expired on 6/26.

   (b) Is assistance within (operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that amount)?

2. FAA Sec. 611 (a) (1). Prior to obligation in — Yes.

excess of $100,000, will there be:

(a) engineering, financial or other plans necessary to carry out the assistance and

(b) A reasonably firm estimate of the cost to the U.S. of the assistance?

3. FAA Sec. 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? — Not applicable.

4. FAA Sec. 611 (b), FY 1982 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 19737 (See AID Handbook 3 for new guidelines.) — Yes.

5. FAA Sec. 611 (e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into — Yes.

consideration the country's capability effectively to maintain and utilize the project?

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral projects? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

No.

7. FAA Sec. 601 (a). Information and conclusions whether project will encourage efforts of the country to:

(a) Increase the flow of international trade;

(b) Foster private initiative and competition; and

(c) Encourage development and use of cooperatives, and credit unions, and savings and loan associations;

(d) Discourage monopolistic practices;

(e) Improve technical efficiency of industry, agriculture and commerce; and

(f) Strengthen free labor unions.

The maintenance of rural access roads, coupled with the development of land terraces and mini-irrigation projects will increase farm output and thereby increase international commodity trade, as well as fostering private farming and marketing initiatives. The development of mini-irrigation systems will encourage the formation of farming cooperatives. By providing small farmers with improved farming infrastrure, monopolistic tendencies are reduced, efficiency is increased and the concept of free labor is strengthened.

8. FAA Sec. 601 (b). Information and conclusions on

The increased produce available for marketing will encourage

how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the service of U.S. private enterprise).	private trading companies from abroad to invest in Guatemala's export trade for farm commodities.
FAA Sec. 612 (b), 636 (h), FY 1982 Appropriation Act Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.	The Government of Guatemala has consistently supported all A.I.D. financed developmental projects with counterpart necessary to achieve project objectives.
FAA Sec. 612 (d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	No.
FAA Sec. 601 (e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	Yes.
FY 1982 Appropriation Act Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance	The majority of the increased crop production resulting from improved conservation practices and access will meet internal demands. Only those few items which are produced in excess and have markets in other central american countries or the western hemisphere may be exported. However, the amount of exportation may be of insignifi-

	likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?	cant magnitude.
13.	FAA 118 (c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16? Does the project or program take into consideration the problem of the destruction of tropical forests?	Yes. Project activities will not be implemented in tropical low lands.
14.	FAA 121 (d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)?	Not applicable.

FUNDING CRITERIA FOR PROJECT

1.	Development Assistance Project Criteria	
	a. FAA Sec. 102 (b), 111, 113, 281 (a). Extent to which activity will (1) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small	(1) The soil and water conservation, access roads maintenance and the forestry components will provide direct payment to laborers for labor intensive work utilizing local appropriate technologies; (2) both access roads maintenance committees and mini irrigation groups will be established to assist the rural poor help themselves; (3) rural Guatemalans will build their own land terraces, mini-irrigation systems, as well as maintain their own access roads, all with the assistance of GOG extension agents technical

	towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?	assistance and supervision; (3) rural women will participate in the planting and harvesting of diversified crops on new terraces irrigated fields and will participate in the marketing of the produce utilizing community maintained access roads; (5) the anticipated increased farm production caused from improved soil and water conservation and access roads may encourage more active regional trade and cooperation within the Central American Common Market (CACM).
b.	FAA Sec. 103, 103 A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?	Yes.
c.	FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using	Yes.

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	technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?	
d.	FAA Sec. 110 (a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?	Yes.
e.	FAA Sec. 110 (b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"? (M.O. 1232.1 defined a capital project as "the construction, expansion, equipping or alternation of a physical falcility or facilities financed by AID dollar assistance of not less than $100,000, including related advisory, managerial	Grant funds will not finance capital assistance.

	and training services, and not undertaken as part of a project of a predominantly technical assistance character".	
f.	FAA Sec. 122 (b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?	Yes.
g.	FAA Sec. 281 (b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the contry's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in government processes essential to self-government.	By providing the rural poor with means of increasing their income through increased and diversified crops, and improved access to market it is anticipated that the rural poor will not be as economically nor physically isolated from those resources as described in Section 281 (b). In addition, rural committees and cooperatives established to maintain roads and develop mini-irrigation systems will provide a foundation for rural farmer participation in self government.
2.	Development Assistance Project Criteria (Loans Only)	
a.	FAA Sec. 122 (b). Information and conclusion of capacity of the country to repay the loan, at a	Guatemala has demonstrated its capacity to repay on a timely basis all A.I.D. loans.

reasonable rate of interest.

b. FAA Sec. 620 (d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? — Not applicable.

c. ISDCA of 1981, Sec. 724 (c) and (d). If for Nicaragua, does the loan agreement require that the funds be used to the maximum extent possible for the private sector? Does the project provide for monitoring under FAA Sec. 624 (g)? — Not applicable.

3. Economic Support Fund Project Criteria

a. FAA Sec. 531 (a). Will this assistance promote economic or political stability? To the extent possible, does it reflect the policy directions of FAA Section 102? — N.A.

b. FAA Sec. 531 (c). Will assistance under this chapter be used for military, or paramilitary activities? — N.A.

c.	FAA Sec. 634. Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such use of funds is indispensable to nonproliferation objectives?	Not applicable.
d.	FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?	Not applicable.

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