

# CORECA

REGIONAL COUNCIL FOR  
AGRICULTURAL COOPERATION



# GISA

INTER-INSTITUTIONAL GROUP  
OF THE AGRICULTURAL SECTOR

## FIRST AGRICULTURAL SECTOR MEETING OF THE CENTRAL AMERICAN GOVERNMENTS WITH COOPERATING GOVERNMENTS AND INSTITUTIONS

# 9

## REGIONAL PROGRAM ON THE DEVELOPMENT OF BORDER AREAS

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PEC/AS/91/9  
PROJECT CAM/90/002  
SPECIAL PLAN OF ECONOMIC COOPERATION  
FOR CENTRAL AMERICA

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The technical information for the First Agricultural Sector Meeting is presented in ten documents to facilitate reading by the cooperating governments and institutions. The documents are:

Executive Summary

Importance of the Agricultural Sector.  
Technical and Financial Assistance.  
Summary of Project Profiles.

Documents 3 to 10 describe the eight regional programs on topics selected as being of priority by the Central American governments. The Programs are:

- PEC/AS/91/3: Regional Agro-alimentary Program.
- PEC/AS/91/4: Program on Irrigation, Drainage and Land Leveling.
- PEC/AS/91/5: Program on the Development of Biotechnology.
- PEC/AS/91/6: Program on Intra-regional Trade and Exports to Third Countries.
- PEC/AS/91/7: Program on Agroindustrial Development.
- PEC/AS/91/8: Program to Strengthen Plant and Animal Health Services.
- PEC/AS/91/9: Program on the Development of Border Areas.
- PEC/AS/91/10: Program to Strengthen Rural Enterprises.

Each Program consists of two components: one of regional scope and the other of national scope. The regional component involves cooperative projects and actions among the countries of the Isthmus, while the national component is made up of the investment projects to be carried out in individual countries.

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AREAS

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**REGIONAL PROGRAM ON  
THE DEVELOPMENT  
OF BORDER AREAS**

1991

PROJECT CAM-90-002 UNDP/PAHO/PEC

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## INTRODUCTION

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The governments of Guatemala, Honduras and El Salvador have undertaken multinational activities in their border areas, in order to efficiently tap the natural resources in the area known as El Trifinio.

Upon conclusion of the first stage of basic studies for the Trifinio Plan, support for the area's population and improvement of their living conditions, were defined as the immediate and priority actions to be taken. Production activities to tap the employment potential in the region are at the core of the strategy.

There is agreement among the central planning agencies of the three countries that the Trifinio region, because it is relatively less developed in comparison to other parts of the three countries, should receive immediate attention through projects that offer social and production improvement and upgrading of existing infrastructure.

This Project is of special interest to the European Economic Community which has provided funding in the amount of US\$8.6 million, or 12 percent of its total cost.

To carry forth this endeavor, and under the funding strategy designed and approved by the Trifinio Plan Commission (composed of the vice-presidents of Guatemala, El Salvador and Honduras), assistance agencies and governments interested in contributing to the development in Central America, are being presented with this technical and economic proposal for their participation and economic support.

Priority action: to improve living conditions in the relatively least-developed areas of Guatemala, El Salvador and Honduras

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## I. FRAME OF REFERENCE

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### **1. Macroeconomic Setting and Its Impact on the Project**

The crisis has affected the socioeconomic development of the three bordering countries involved in this Project. Its clearest manifestation is the fact that the growth model has become outdated and is no longer capable of improving the well-being of the majority of the population. The characteristics of the crisis are: decline in the rate of growth in the most dynamic sectors; concentration of income in certain strata of society; increased unemployment; capital

The aim is to incorporate the economically-disadvantaged population into the development in their respective countries.

flight and decline in investment; and a rapid deterioration in the terms of trade with the rest of the world.

The three countries share the following development objectives: achieving sustained economic growth; improving the internal and external financial balance; attaining competitive access to international markets; and incorporating the economically-disadvantaged population into the national development process.

Though similar, the economic structures of the three countries are competitive with each other, and vulnerable to the same internal and external factors. For instance, coffee is the major export of both Guatemala and El Salvador, and it is Honduras' second export. In 1985, coffee exports accounted for 45.6 percent, 60.2 percent and 23.0 percent, respectively, of the total exports of each country.

The multinational region chosen has a population of more than 500,000 (75 inhabitants per square kilometer).

The agricultural and livestock products exported by El Salvador are also supplied by Guatemala and Honduras. Only cardamom in Guatemala and lumber in Honduras, are significant exceptions. The population settled in the border region of the three countries was estimated at 572,000 in 1987, with an average density of 75.3 persons per square kilometer.

The average population growth rate over the past years has been 1.2 percent, lower than the national averages. Most of the population lives in rural areas (78%), engaged mainly in agriculture, although, as a consequence of underemployment, there are some artisan activities.

Sixty percent of the population in the common border area live in extreme poverty. More than 50 percent of the economically-active population (EAP) is either affected by overt unemployment or underemployment. The average annual income of the inhabitants of the area is less than the national averages of the three countries.

Commercial transactions in agricultural products are carried out through middlemen. The producer sells at low prices and must subsequently purchase at high prices since in the harvest period, due to the abundance of output, prices are low. Because of the need to acquire other goods (sugar, salt, pastas), part of the harvest must be sold. Finally, many must migrate to seek employment and purchase the same products at higher prices.

Artisan and industrial activities are also found in the region, mainly the processing of agricultural, livestock and forest products and, of lesser relative importance, the processing of non-metallic ores. On the Guatemalan side, the leading activity is the processing of foodstuffs. On the Salvadoran side, the production of cement, textiles, garments and shoes predominate. In Honduras the leading industrial activity is lumber production.

There are 1,144 kilometers of unpaved dirt or gravel-surfaced roads, 68 percent of which are in the Guatemalan section, 14 percent in El Salvador and 17 percent in Honduras. In general terms, the area is still lacking in health, education and communications infrastructure.

The agricultural and livestock warehousing and merchandising infrastructure, operated by the National Institute for Agricultural Marketing of Guatemala (INDECA) in the Trifinio area, includes three purchasing and storage centers with a total storage capacity of 19,700 quintals of grains in silos, and 8,500 quintals in warehouses.

In El Salvador, the Supply Regulation Institute (ITA) operates warehouses and silos in Metapan for storing 47,000 quintals of basic grains, and marketing of milk and sugar. The Honduran Agricultural Marketing Institute (IHMA) has two rural granaries with a capacity of 2,700 metric tons.

The three countries have agricultural storage and marketing infrastructure in the Trifinio region.

In addition, local markets are also used for holding fairs and slaughtering livestock, and the rudimentary storage capacity of campesino farms provides a basic model of marketing services that cover a good part of regional needs.

## **2. Analysis of Production Options and of the Technical Environment**

In Guatemala, the areas requiring the most urgent attention are the municipalities of Agua Blanca, Santa Catarina Mita, Ipala, Esquipulas, San Jose La Arada and Chiquimula. These municipalities have a total area of 1,232 square kilometers.

In Honduras, the most critical areas are the entire department of Ocotepeque, and six municipalities in the department of Copan which comprise the entire Honduran area covered by the Trifinio Plan, totaling 3,034 square kilometers. A total of 12,912 farms that could potentially be linked to the Project have been identified.

The area selected covers 5,500 square kilometers.

In El Salvador, the area in question is located in the extreme northwest of the country. It includes the northern sector of Western Region I, comprised of the municipalities of Santiago La Frontera, San Antonio Pajonal, Metapan, Masahuat and Santa Rosa Guachipilin in the department of Santa Ana, as well as the municipalities of Citlala, San Ignacio and La Palma in the department of Chalatenango. The total area involved in El Salvador is 1,158 square kilometers.

The region is primarily semi-arid. Nevertheless, it possesses sizable water resources, since it is the origin of the upper watershed of the Lempa River, one of the most important in Central America. The northern part is traversed by the sub-basin of the Rio Grande de Zapaca, part of the Motagua watershed.

Land suitable for farming accounts for eight percent of the region's area, with corn and beans being the primary crops. Livestock raising has emerged as an activity marginal to agricultural development. Over the past years, some producers have achieved more ad-

vanced technological levels than traditionally had been the case in dual-purpose cattle raising (milk and meat), hog raising and fowl.

Land use in terms of type of cover includes forests, open woods interspersed with grasslands, and grasslands with subsistence agriculture. This last type of cover predominates and is found in more than 50 percent of the area. Subsistence agriculture is possibly linked to a steady degrading of the soil. Annual crops needing low level technology, produced under two systems -- single cropping and associated crops -- predominate in the region; the latter is the most common.

In aggregate terms, potential land use capabilities are as follows:

Land is most apt for permanent cropping and forestry (75%).

Lands for intensive agricultural and livestock activities	10 percent
Lands for permanent crops, grasslands or forestry	15 percent
Lands for permanent crops, forestry and protection	75 percent

### 3. Socioeconomic Situation of Potential Beneficiaries

In the area considered under the Project, small holdings are found side-by-side with large estates. In the Guatemalan section, farms of less than 0.7 hectares constitute 42.7 percent of the total number, and 4.4 percent of total area of farms. Farms measuring more than 45 hectares account for 2.5 percent of the total number of farms, and 47.2 percent of the land area.

In the Honduran section, farms under five hectares in size account for 64 percent of total farms and cover 2.9 percent of the total area. Farms larger than 200 hectares account for 0.9 percent of total farms and account for 30 percent of the area. In the Salvadoran section, farms measuring less than one hectare account for 57 percent of the total number of farms and 4.3 percent of total area, while farms larger than 50 hectares represent 2.2 percent of all farms and occupy 60 percent of the total area.

Job sources are scarce and most of the population engages in agriculture in the rainy season, in other words, during five months of the year. The rest of the time they are unemployed. A little more than 50 percent of the economically-active population is unemployed (including underemployment), and is forced to migrate to urban or rural areas having a greater production potential and offering better access to public services. The course of migration flows from hamlets and small villages, to the relatively more developed municipal seats within the countries and even across national boundaries.

There is a housing shortage in the region. Dwellings without water, drainage and electricity account for 70 percent of the total.

Housing in the Trifinio region is not only in short supply but it is also substandard: 70 percent of the housing units in the region have no water, drainage or electric power service, and less than 10 percent of dwellings have all of these services.

The leading causes of disease and mortality among the population, stem from substandard sanitary conditions and the lack of potable

water and drainage services. Intestinal parasites are a leading problem and there is a high incidence of respiratory illnesses, anemia and malnutrition.

#### **4. Institutional Conditions**

The agricultural public sector agencies in the countries taking part in the Trifinio Project, have made a significant contribution to developing and implementing programs and projects. They have an interest and commitment to developing the area and have made their institutional resources available for that purpose. Some social welfare institutions work in the region, but the services offered and their coverage are extremely limited.

#### **5. Legal Framework**

The General Secretariat of the Organization of American States (OAS) and the Inter-American Institute for Cooperation on Agriculture (IICA), signed a technical cooperation agreement with the governments of Honduras, Guatemala and El Salvador to formulate the Trifinio Integrated Development Plan. This Project is part of that Plan and it has been approved in that context.

#### **6. The Project in the Context of Regional Integration**

National institutions in the three countries have participated in the work undertaken and in drawing up specific investment proposals for the Trifinio Project. The Project seeks to accelerate and upgrade the border integration process. This can be accomplished if conditions for sustained development are created in the area by tackling jointly common problems. Also, the aim is to identify and execute larger-scale measures to multiply the activities of the countries in the area.

The activities proposed for the Trifinio represent a challenge for regional integration.

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## **II. PROJECT DESCRIPTION**

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### **1. Justification**

The Project area is threatened by a serious and rapid environmental deterioration, reflected mainly in deforestation, loss of plant cover, erosion by, and irregularity of, water currents, and pollution of lakes and rivers. Furthermore, the soil is not especially suitable for agriculture.

Agriculture and livestock raising are fundamental and will continue to be so for a long time. The region's leading limiting factor is the scarcity of water for agriculture and even for household use. The social indicators (health, education and others) are lower and more disturbing than for the countries' other regions, and there is a lack of

basic infrastructure. For all these reasons, economic and social improvement of the farming communities can come from combining small and varied sources of income, in an overall process of agricultural reactivation.

The Project's importance is centered on the achievement of better use of the land resources through appropriate farming systems that ensure soil conservation and increase production of basic foodstuffs for household consumption.

There is a serious deterioration in the standard of living among the population of the Trifinio Plan region, as well as a technological lag in production. The demands of a rural population living in extreme poverty, must be satisfied.

The execution of the Project is one of the major priorities of the governments of the three countries. This has been manifested by the Trinational Trifinio Plan Commission which seeks to establish and conserve a biosphere reserve. The aim is also to incorporate the region's communities into an integrated development process, promoting conservation and offering alternatives that can improve the standards of living of the inhabitants while, at the same time, arresting the deterioration of natural resources.

## **2. Objectives**

### *General*

Main objective: to raise the population's standard of living through an efficient technical and production process, combined with dynamic financial and organizational mechanisms

To provide direct support to the rural population of the Trifinio area, in order to raise standards of living through a combined process of technical and production actions, support services, and application of financial and organizational mechanisms that ensure their participation, and guarantee the conservation of natural resources. This will be achieved by combining the efforts of the three countries sharing the area.

### *Specific*

- To establish activities that create jobs and raise family income levels
- To conserve and manage natural resources in a sustained fashion and to optimize the use of forest species for energy supply
- To adopt and develop technologies making possible the efficient use of available resources, with a view to increasing productivity and the production of goods and services generated by the farm household
- To promote and organize the beneficiaries for establishing agroforestry and marketing enterprises

Appropriate technology should be applied in the region and traditional methods used effectively.

- To upgrade the farming community's capitalization capabilities by carrying out a diversity of activities, especially reforestation
- To tap the existing institutional capacity in the region through a special joint and coordinated effort

### 3. Strategy

The key to the Project's strategy is the interrelationship among the components. Each one will represent part of the solution and will serve as an input or prerequisite, enabling the others to function appropriately.

Mechanisms based on the current institutional structure will be used for reaching agreement among the countries.

Joint technology development programs will be developed for agricultural, livestock, forestry and agroindustrial activities, particularly involving research and transfer of technology and including a training component. This is viewed as the key to success of the Project and will target technicians and rural dwellers.

The process is comprehensive in nature and includes agricultural, livestock, forestry and agroindustrial activities.

Social welfare institutions will be incorporated into the Project in order to serve the principal basic needs of the population.

Three Basic Service Centers (CBS) will be created to execute and coordinate all of the Project's activities. They will operate for development of areas or microregions.

The CBS will be jointly administered by the participating national institutions and organizations of beneficiary farmers and foresters. They will administer the financial resources allocated to each of the Project's zones.

These Centers will create and promote the conditions for developing the Project's components. They will organize the enterprises to be administered by producers' associations. Each of these Centers will be assimilated at Project-end by the producers' organizations, to become agroforestry production and marketing enterprises.

Because of their role in organizing farmers' associations, the three Basic Service Centers to be created will be of particular importance.

Special forestry areas will be established and developed for firewood, and basic physical and social infrastructure will be provided to complement Project activities, having a direct impact on supporting the farm household complex. Farmers, in turn, will contribute the resources (labor) required by the other components.

The complementarity among the components will be achieved through disbursements to remunerate the contributions made by

the farm family with payments in food, inputs and cash. The last two will bolster the assets of the beneficiaries' production units.

#### **4. Components**

The Project consists of three basic components:

##### *Component 1. Reforestation*

Aside from contributing to conserving the environment and replenishing the forest cover, this component includes soil conservation works and represents the driving-force of the Project. It will generate job opportunities, thus reducing underemployment, particularly among the beneficiaries. Its purposes are to establish a balance between the supply of, and demand for, firewood for household use, and to meet industrial requirements in towns where consumption is greater.

Reforestation will be carried out with the active participation of forestry enterprises; private activity will substitute State activity in a good portion of Project activities.

The proposed reforestation program centers on the development of forestry enterprises which will form the basis for the development of commercial plantations. Additionally, consideration has been given to providing incentives to promote the participation of other producers, in order to accomplish the goals of reforestation and channel the Project's benefits towards other segments of the rural population.

The incentive will consist of offering a percentage of the revenue obtained during the life of the plantation; this percentage is expected to be as much as 30 percent. The remaining 70 percent (approximately) will be used to replenish the capital provided under the Project and will enable activities to become self-sustaining. In this way, a "Project Fund" will be created to recycle the funds and expand the reforestation and soil conservation areas. Likewise, it will upgrade basic social infrastructure and bolster farm development.

##### *Component 2. Small-farm development*

Model farms will be set up. The farm will be the unit of production and the family unit will be the focus of Project activities.

This component combines a series of activities and investments at the farm level with support services having direct impact on the production, productivity and management of the resources available to small farmers. The elements to be covered here are related to the transfer of appropriate technology as envisaged in the operating plans of the "model farms," appropriate soil conservation practices, outreach and training, and technical assistance for social and production organization.

The nature of the small-farm economy in the area, involves the farm as the production unit and the family unit as the target of the Project's efforts.



To evaluate Project impact on beneficiaries, "farm models" have been developed that incorporate technical and production improvements, and specify the resources needed for such upgrading. The operating strategy of the Project is based on these models and corresponding activities fan out to the other components.

The first model was designed for a 0.6 hectare farm, which was the size most commonly found in the Project area. The second model is for 1.9 hectares and the third, 3.2 hectares. These two will be applied to fewer holdings, the last being the least common.

### *Component 3. Basic infrastructure*

This component aims to ameliorate living conditions in the rural sector, with emphasis on nutrition, housing and education. This will be achieved through a coordinated effort to increase the coverage of other programs to be implemented with the Trifinio Regional Plan.

Nutrition, housing and education: upgrading living conditions in the rural sector is one of the prime objectives of the Project.

The importance of this component is evident because it provides support to the others. During execution, it will offer temporary jobs through work on roads, construction of community reservoirs, and artisan activities, among other activities.

Additionally, in the Project area, warehouses will be built for inputs and food, to be supplied as payment-in-kind for the reforestation work carried out by the households. Furthermore, devices including improved stoves, water filters, family silos and others, will be promoted and disseminated in order to optimize existing resources.

This component will include all the goods and services required for the small-farm development and reforestation component; physical and social infrastructure works complementary to the region's development have been envisaged.

## **5. Goals**

The following goals are expected to be reached during the five years of the Project's life:

- To create jobs. Reforestation activities will generate around 280,000 new days of work annually; the rural dweller development component, 360,000 days; and infrastructure works, 600,000 days.
- To reforest an average of 5,000 hectares annually, for a total of 25,000 hectares in the five years of the Project's life
- To establish three Basic Service Centers (CBS) to administer, coordinate and control the execution of the Project's components and, particularly, to manage its financial resources

Reforestation (only one of the Project's components) will generate more than one million new work/days. Some 25,000 hectares will be reforested.

Some 90 groups will be organized of farmers engaged in agroforestry, crafts, fisheries and other activities.

- To carry out soil conservation works on 2,900 hectares consisting of the construction of ditches on slopes and other mechanical soil conservation works
- To develop 60 artisan units, for canning food, building family silos and installing water filters and improved stoves
- To increase maize production by 9,700 metric tons, beans by 7,000 metric tons, sorghum by 200 metric tons, rice by 900 metric tons, vegetables by 12,000 metric tons and coffee by 6,500 metric tons
- To organize 90 farmers' groups for developing agroforestry, artisan, fisheries and other activities
- To improve 500 kilometers of roads in the main access network to the work areas and communities
- To establish six warehouses for inputs, six collection centers, three fisheries stations and three demonstration farms
- To expand and upgrade the basic educational, health and housing infrastructure. Sixty schools will benefit; 26 health centers and 6,000 housing units will be added.
- To construct six small reservoirs and establish mini-irrigation units to serve a 400-hectare area

## **6. Project Beneficiaries**

Direct beneficiaries: 14,000 producers. Per-capita investment: US\$2,000

Total direct beneficiaries will be 14,000 producers, in a total area of 44,000 hectares to be served by the Project. Beneficiaries will be brought into Project activities as the Basic Service Centers, the operating headquarters of the Project in each of the countries, are set up. The Esquipulas center will serve 5,460 beneficiaries, Nueva Ocotepaque 4,480 and Metapan 4,060.

The Project life will be five years. Beneficiaries will be brought into the Project progressively over the five-year period, at an approximate annual rate of seven percent, 22 percent, 35 percent, 30 percent and six percent, respectively. The assumption is that this pace of incorporation is in line with the Project's execution and development capabilities, considering national capacity and availability of resources. Per-capita investment through the Project is estimated at US\$2,071.40.

## **7. Support Services for Production**

Support services required for the Project will be supplied by national institutions having technical leadership in the areas of action of the Project's three components. These include extension (outreach and

organization), agricultural research and training, services, health and education, and physical and social infrastructure.

The Project will sign agreements and accords as required with the specialized national institutions, to obtain support services. The possibility exists of working with non-governmental organizations wishing to participate in the Project.

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### III. ORGANIZATIONAL STRUCTURE

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#### **1. Executing Unit**

The organizational structure will have an executive level, consisting of the Trilateral Commission, the Executive Secretariat and the Trilateral Sectoral Operating Commission. It will also have an operating level, composed of the Project director, the Basic Service Centers (CBS), the administrative support unit, the planning, follow-up and evaluation unit, and the technical unit.

The operations section and its various components constitute the executing unit of the Project. This unit will be responsible for the planning and execution of activities to meet Project objectives and goals. The planning, follow-up and evaluation unit will be in charge of planning operations, for which it will prepare quarterly and annual plans.

#### **2. Plan of Action**

The Project's plan of action will be built around the operating plans of each CBS. These, in turn, will schedule their activities in order to fulfill their primary function of coordinating all the Project's activities. They will also promote and organize producers into enterprises that deal with both the production and marketing phases of agricultural, livestock and forestry activities.

Upon Project completion, the administrative capability and experience acquired by the CBS should be transferred to the producers through a gradual, participatory process.

Upon Project completion, the Basic Service Centers will be gradually transferred to farmers.

The operating strategy should take into account the fact that the reforestation and basic infrastructure components must be initiated before the small-farm development component gets under way.

Operating plans are to be drawn up with the participation of the producers, using the basic plan and timetable for the activities of the components as a reference.

### 3. Resources

A minimum of technical and operating resources will have to be acquired. Administrative growth resulting from the demand for services will be averted in this way, with services being provided by existing sectoral institutions. The Project will operate primarily through agreements and contracts to secure the resources of the national or regional organizations.

The executing unit will require a director, a secretary, an administrator, three CBS coordinators, six support technicians and service personnel; fifteen technicians will be requested as institutional counterparts.

### 4. Participating Institutions

The executing unit, directly or through the Executive Secretariat of the Trifinio Plan, will link up all the agricultural and livestock public-sector agencies that should and can contribute to the Project's success. Coordination with agriculture and livestock ministries of the three countries, will provide fundamental institutional support to the Project. The Trinational Executive Secretariat of the Trifinio Plan will act in all cases where extrasectoral linkage is required.

It is expected that the executing unit and its executive technical group will have sufficient operating capacity in the region, which, for purposes of the Project, will be dealt with as a single territorial unit. Direct technical support may be required to facilitate and complement technical cooperation: this could be entrusted to one of the international or regional agencies with direct work experience in the region.

The executing unit and participating organizations will operate as if there were no borders, and will receive necessary technical cooperation from international or regional organizations.

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## IV. COSTS AND FINANCING

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### 1. Costs

The total cost of the Project is estimated at US\$29 million; if this amount, US\$23 million will be disbursed in foreign exchange and US\$6 million in local currency. Distribution of costs by components is as follows:

Component	US\$ X 000
Component 1. Reforestation	11 937
Component 2. Basic infrastructure	9 743
Component 3. Physical and social infrastructure	3 900
Executing Unit	3 420
<b>Total</b>	<b>29 000</b>

Total cost of the Project: US\$29 million

Funds will be allocated as follows over the five-year period: year one, 10 percent; year two, 21 percent; year three, 30 percent; year four, 27 percent; and year five, 11 percent.

## 2. Financing

The Project will be financed with external resources totaling US\$19.68 million and a local component of US\$6 million. A total of US\$3.32 million in international technical assistance is required.

Local contribution: US\$6 million.  
International technical assistance: over US\$3 million.  
External contribution: nearly US\$20 million.

Financing by component is as follows:

Component	Local	Financing	Technical co-operation	Total US\$ X 000
Reforestation		10 937	1 000	11 937
Basic Infrastructure		8 743	1 000	9 743
Physical and social Infrastructure	3 900			3 900
Executing unit	2 100	1 320	3 420	
<b>Total</b>	<b>6 000</b>	<b>19 680</b>	<b>3 320</b>	<b>29 000</b>

## V. ANALYSIS

### 1. Technical Analysis

To meet the technical and administrative requirements of the Project, it is considered that the countries participating in the Trifinio Plan have accumulated considerable experience and technical and institutional capabilities. One example is the Western Region Development Project (PRODERO) in Honduras which was recently concluded.

The necessary technology is available, especially for the reforestation and small-farm development components.

PRODERO was executed by the Ministry of Transportation and Public Works, the Honduran Institute for Agricultural Marketing, the National Agricultural Development Bank, Public Health, and the National Water and Drainage Service. Through technical cooperation agreements, the Honduran Corporation for Forestry Development and the National Agrarian Institute also participated; the latter provided basic and complementary services. These institutions are equipped to cooperate with the Project and to support efficient execution in each of the components.

The technology required for Project activities, especially that considered for the reforestation and small-farm development components, are available and, in some cases, are already in use in the Project.

## 2. Institutional Analysis

The executing unit will be set up as a simple administrative structure. It must be guaranteed sufficient autonomy and operating flexibility to adequately and efficiently execute the Project.

The Project will make maximum use of the operating capacity of the institutions working with it. In this way, the Project will contribute to boosting the performance and utilization of available institutional resources, achieving a better allocation of resources to the Project area.

Counterpart resources for the Project have been agreed to by the countries, and are guaranteed within the framework of the agreements establishing the Trifinio Plan. More specifically, contributions by the countries correspond to items that can be financed through the regular budgets of public sector agricultural institutions.

## 3. Legal Analysis

The Project will be subject to the agreements and accords signed by the countries and financial and technical cooperation organizations. It receives the political support of the governments of the three countries and, for this reason, no legal obstacle is foreseen for its execution.

## 4. Financial and Economic Feasibility

Financial analysis demonstrates the net worth of the Project.

According to the indicators of rate of return, the Project is feasible. The calculations were made to reflect 15 years of useful Project life.

Variable	FIRR	B/C	NPV (US\$ X 000)
Project	20.0%	1.14	11 600

### *Sensitivity Analysis*

Revenue -10% and Costs +10%	12.4%	1.03	2 691
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The net present value of US\$11.6 million, translates into revenues equivalent to US\$2.3 million per year, compared to an investment average (financed) of US\$1.1 million per year. An annual US\$200 increase in the income of each beneficiary is estimated.

## 5. Project Impact

- The Project's main impact will be in the conservation of resources and protection of the environment. Some 25,000 hectares will be reforested. In the medium term, indirect environmental benefits of the Project will have a positive qualitative influence on populated areas.
- In terms of employment, the Project will generate 1,240,000 work/days per year, significantly reducing the levels of underemployment in the area. Furthermore, increased production will improve the nutritional situation.
- Farmers will be organized through the activities of the Basic Service Centers. The construction of infrastructure will generate multiplier benefits for Project area farmers.

Main results: resource conservation; environmental protection; reforestation; job creation; improvement of food situation.

The Basic Service Centers will bolster farmers' organizations. Infrastructure works will generate jobs and have a multiplier effect.







