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

HONDURAS

PROJECT PAPER

LAND USE AND PRODUCTIVITY ENHANCEMENT

AID/LAC/P-505

Project Number: 522-0292

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COVER

APPENDIX 3A, Attachment 1
Chapter 4, Handbook 3 (TM 3:43)

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete)
Amendment Number
DOCUMENT CODE: 3

2. COUNTRY/ENTITY: HONDURAS

3. PROJECT NUMBER: 522-0292

4. BUREAU/OFFICE: LATIN AMERICA AND THE CARIBBEAN 05

5. PROJECT TITLE (maximum 40 characters): LAND USE AND PRODUCTIVITY ENHANCEMENT

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 03 DD 31 YY 97

7. ESTIMATED DATE OF OBLIGATION (Under 'B' below, enter 1, 2, 3, or 4)
A. Initial FY 89 B. Quarter 2 C. Final FY 97

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

A. FUNDING SOURCE	FIRST FY 89 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(3,000)	(1,000)	(4,000)	(13,503)	(22,497)	(36,000)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country					14,000	14,000
Other Donor(s)						
TOTALS	3,000	1,000	4,000	13,503	36,497	50,000

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
(a) ARDN	213	251		-0-		4,000		36,000	
(b)									
(c)									
TOTALS						4,000		36,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
020 066 067 090

11. SECONDARY PURPOSE CODE

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

a. Code	BS	ENV	TECH				
b. Amount	15,000	11,000	10,000				

13. PROJECT PURPOSE (maximum 480 characters)

To improve hillside agricultural production and productivity on a sustainable basis, including the management and effective protection of Honduran natural resources on which production depends.

14. SCHEDULED EVALUATIONS
Interim MM 03 YY 92 MM YY Final MM 03 YY 97

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)

Best Available Document

17. APPROVED BY
Signature: John Sanbrailo
Title: John A. Sanbrailo
Mission Director
Date Signed: MM 02 DD 08 YY 89

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

PROJECT AUTHORIZATION

Name of Country: Honduras
Name of Project: Land Use Productivity Enhancement
Number of Project: 522-0292

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Land Use Productivity Enhancement Project for the Republic of Honduras (the "Cooperating Country") involving planned obligations of not to exceed Thirty-Six Million United States Dollars ($36,000,000) in Grant funds ("Grant") over an eight year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/Allotment process, to help in financing foreign exchange and local currency costs for the Project ("Project"). The planned life of the project is eight years from the date of initial obligation.

2. The Project will assist Honduras to improve hillside agricultural production and productivity on a sustainable basis, including the management and effective protection of Honduran natural resources on which production depends. The project consists of technical assistance, commodities, training and financial resources required to carry out two principal interrelated components, sustained production enhancement and post harvest interventions.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

a. Source and Origin of Goods and Services

Commodities financed by A.I.D. under the Grant shall have their source and origin in the United States, or in the Cooperating Country or in other Central American Common Market Countries, except as A.I.D. may otherwise agree in writing. Except for ocean shipping the suppliers of commodities or services shall have countries which are members of the Central American Common Market, including the Cooperating Country, or the United States (A.I.D. Geographic Code 000) as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Project, shall except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

John Sanbrailo

John A. Sanbrailo
Mission Director
A.I.D. Mission to Honduras

LAND USE AND PRODUCTIVITY ENHANCEMENT (522-0292)

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I. SUMMARY AND RECOMMENDATION

A. SUMMARY

The goal of the Land Use and Productivity Enhancement (LUPE) Project is to increase the socioeconomic well-being of the rural Honduran family. The purpose is to improve hillside agricultural production and productivity on a sustainable basis, including the management and effective protection of Honduran natural resources on which production depends. Problems addressed are the constraints faced by small-scale marginal and commercial farmers who farm Honduran watersheds. There is a growing scarcity and deterioration of available arable lands resulting from growing population pressures, as more and more Honduran families are forced into less productive and more fragile hillsides. Natural resources cannot be sustained in these marginal areas under traditional cultivation practices. Flooding, erosion, siltation and seasonal drying up of streams and aquifers result, with consequent loss of productivity, harvests and income for these farming families.

USAID/Honduras has been addressing some of these problems through two technical assistance projects: The Natural Resources Management Project ("NRMP", No. 522-0168) and the Rural Technologies Project ("RTP", No. 522-0157). While these projects have limited geographic scale, they have tested and proven a number of effective conservation and production enhancing methodologies, technologies and innovations. It is now appropriate for these activities to be initiated in the areas where they worked and to be extended to other areas of Honduras, and for linkages with other USAID projects to be strengthened or established. Valuable lessons have been learned through implementation of ongoing projects, and these are discussed and appropriately taken into account in the institutional and implementation planning for the components of LUPE.

Activities for LUPE will be in these project categories:

1. Improved cropping systems -- enhancing and diversifying technologies for producing basic grains, fruits, vegetables and tree crops while conserving and improving the natural resource base.

2. Improved animal systems -- enhancing animal health, grazing and range practices, and small animal management.

3. Post-harvest processing and storage -- small silos, pest management, basic handling, processing and packaging at farm and community levels.

4. Facilitated marketing including assistance to farmers to secure market information and credit.

LUPE will make a substantial contribution to increasing the efficiency and productivity of hillside agriculture in Honduras, specifically in the areas of increased small scale production of basic grains, higher value

crops and livestock. All farm families reached through LUPE are expected to enjoy improved subsistence security and nutrition and increased participation in the market economy. LUPE also will make a significant contribution toward reversing the deterioration of the natural resource base of Honduras.

The Project will be implemented under the Ministry of Natural Resources (MNR) of the Government of Honduras. This ministry is currently responsible for the Natural Resources Management Project. LUPE will incorporate private sector organizations such as PVOs and educational and research institutions as needed and appropriate. The planned cost of the Project is $50 million, over an eight year period. $36 million of the cost will be funded through a grant from A.I.D.

B. RECOMMENDATION

The USAID/Honduras Project Design Committee has determined that the proposed activities are technically, administratively, economically, financially, environmentally and socially sound. The specific analyses carried out during the intensive review indicated that all identified obstacles can be overcome. It is the Committee's judgment that the Project, as designed, can and will achieve its purpose.

The Project is in conformity with the Agency's policies on Food and Agricultural Development, Environmental and Natural Resources Management, and Women in Development. An Environmental Assessment was carried out as part of the technical analysis of the Project to assure environmental soundness and compliance with recent Foreign Assistance Act provisions regarding protection of tropical forests and biological diversity. The Project is also congruent with the National Bipartisan Commission on Central America's recommendations and supports the USAID/Honduras Action Plan Agricultural Production objective. Finally, the Project fully supports Government of Honduras goals to increase agricultural production, enhance productivity and conserve natural resources.

II. BACKGROUND

A. THE PROBLEM

1. General Background

In spite of the sustained economic reform program which increased real Gross Domestic Product (GDP) growth to over 4% in 1987, Honduras remains a poor predominantly (61%) rural country. The population growth rate has increased from two and one half (2.5%) percent in 1970 to three point six (3.6%) percent in 1978. In 1987 population growth was estimated at three percent (3.0%), the first time in a decade in which the population growth rate has been less than the economic growth rate.

Agricultural production accounts for approximately one quarter of GDP. Twenty-five percent of the total land area of Honduras is considered to be arable. Over sixty percent of Honduran labor force works in agriculture, many of them pushed to farming on fragile, less productive hillsides. Subsistance crops such as corn and beans, are grown on twenty-eight percent of the total arable land, most of which is fragile hillside land. The amount of land already in farms and pasture exceeds that which would normally be classified as suitable for agricultural use. This problem is on the increase because continuing population pressures (1988 estimate of Honduran population growth is 3.0% per year) are forcing more and more farming families to fragile hillside cultivation and grazing areas.

These areas are notable for their poor, shallow soils, which in turn cause cronic low production and productivity. Present average yields using traditional methods for corn and beans are 13.3 and 10.0 quintales (a hundred weight)/ha. respectively. These inefficient production practices lead to intense soil erosion and a loss of soil fertility, which in turn accelerate deforestation and overall watershed deterioration as the farmer is forced periodically to move to another hillside. Overgrazing by each farmer's few poorly-fed animals prevents natural regrowth of new forest trees and further increases erosion. Urban migration is frequently the end result of this process for the farm family, an unfavorable alternative which creates further stress on resources. The hillside lands left behind, critical watersheds for sustained water resources, become barren waste land which produce dried up stream beds during the dry season, flooding downstream in the valleys and increased silting of water retention structures. The implications of these phenomena therefore affect nearly all the population in one way or another.

The persons who farm these lands, the small hillside farmers and their families are an important resource. They produce approximately three quarters of the country's basic grains and represent a significant portion of the rural population. Because of where and how they farm, they contribute to deforestation and deterioriation of the watersheds.

The small hillside farmer has traditionally received very little assistance from the public and private sector, due primarily to poor accessibility and very little perceived economic impact potential of these farms to the agricultural sector. Experiences from the NRM and RT projects, however, have proven that most of the nation's hillside farms possess a significant potential for increasing production levels (two and three fold) and becoming sustained, resource-conserving systems. Such improvements to a significant number of these farm families not only reduces the negative impact to the surrounding territory, but also act to strengthen the economy of the area.

Among this large group of small hillside farmers, the Mission has defined marginal and commercial small farmers to be project participants and beneficiaries. At a minimum, the marginal small farmers comprise 125,000 households, and the commercial farmers 75,000 households. This project is designed to directly benefit 50,000 farm families in these two groups. Marginal small farmers, on the average, have less than 3 hectares of land. According to the Mission Draft Agricultural Sector Strategy, annual family income ranges from Lempiras 987 for the 0-2 hectares farm to Lempiras 1,432 for those with 2-3 hectares. Off-farm income contributes 39% and 28% of this income, respectively.

Most farms are heavily devoted to annual crops, primarily basic grain crops for personal consumption. At times, the farmers are both sellers and buyers of these crops. Farming practices are traditional (slash/burn) and intensive. These small farmers intercrop and double-crop their plantings, with little or no land dedicated to pasture or fallow-time. Commercial farmers differ in that they consistently produce marketable surpluses. They are less averse to taking risks and productive capacity and incomes surpass those of the marginal small farmer. While also producing annual crops, they devote more of their land to pasture, perennial crops, and fallow or non-use. Farms in all categories are found on hillside lands (containing 15% or greater slopes), and these are the farms that are considered highest priority for LUPE interventions.

2. Constraints:

The agriculture sector, particularly the portion relating to marginal small and commercial farmers, faces policy, social, institutional, technological, geographical/environmental and financial constraints. Some of the more significant follow.

(a) Traditional Honduran farming practices in forest clearing, grazing, slash and burn, tilling and repetitive cultivation are not sustainable in tropical areas which have long dry seasons. This particularly is true in hilly areas with thin and fragile topsoils which are being occupied at an accelerated rate.

(b) To change from traditional to ecologically sound farming practices, farmers require appropriate technical knowledge in terracing, composting and irrigation techniques, improved seeds, affordable tools and other production inputs and in some cases access to economically appropriate credit. Honduras does not currently have the capability to provide the needed technical assistance and support to most of the hillside farmers.

(c) In addition to technical support, hillside farmers require effective access to markets. Hillside farmers need better access to affordable transport and marketing mechanisms in order to justify expanding or diversifying their production. Their geographical isolation means limited access to road infrastructure for marketing, increasing costs to farmers for essential tools and other production inputs, and decreasing farm gate prices.

(d) Typically the small scale hillside farmer lives on the margin of poverty. These producers cannot take risks to increase and improve production when credit is necessary without assurances of market sales and sufficient sales earnings. They have difficulty obtaining credit when they are able and willing to take risks, because banking and credit institutions consider them to be high credit risks.

(e) Because of low levels of production and a lack of basic services many farm families suffer from surprisingly high levels of malnutrition. Studies indicate that in some of the poorer areas of the country that malnutrition among children under five may be at 40% and that levels of malnutrition may (in certain geographic areas) have remained unchanged for the past twenty years. This project will attempt (as discussed more fully below) to improve farm family nutritional status by increasing production and incomes. Project site selection criteria (discussed below) incorporate this recognition of the severity of the malnutrition by making nutritional status an important critereon for selection of the project zones.

(f) National public policies can create other constraints for the small scale farmer. Inadequate import actions sometimes lead to importations of basic grains which adversely affect local prices. GOH austerity measures have severely limited resources for the small farmer, and the MNR's ability to extend and expand programs aimed at the small marginal and commercial farmer.

(g) Key participants in small-scale farming in Honduras are women. They face social constraints, based on their gender, that restrict their ability to increase their agricultural productivity while maintaining the farm household. Women are often seasonal heads of households when men temporarily migrate to work off-farm. In increasing numbers, they become permanent heads of households due to male mortality, male long-term migration, or union dissolution. The Mission estimates that approximately one quarter of all Project households are headed by women. Technical assistance to women to increase their productivity or more efficiently improve the standard of living of the family is extremely limited, and in most isolated areas is totally lacking. As in the case for men, access to credit for small scale farming women is next to nil.

Two very important conclusions with significant programming implications can be drawn from these conditions.

(a) Agriculture's already significant contribution to the economy could be greatly increased over the short to medium term if low technology production methods are transformed at low cost into even moderately more productive systems. It is estimated, for example, that changing traditional methods for improved cropping practices with conservation structures could nearly triple corn and bean yields while increasing net returns by a factors of 5.5 and 3.7 respectively.

(b) Unless more attention is placed on improving the management and conservation of Honduras' natural resource base, the ability of the agricultural sector to continue contributing significantly to the economy is in jeopardy.

Relieving the constraints faced by farmers is critical in transforming Honduran agriculture to a sustainable production system. The constraints described above place Honduras in a race against a time when Hondurans could find themselves poorer, hungrier, and scrambling more desperately than ever to eke out a living from an environment drained of its productive potential. Without rapid dissemination of practices designed to reverse land degradation, the net result will be a continuing downward spiral of natural resource destruction, lower productivity and further decreases in real farm income.

The LUPE Project will address constraints facing the farmer on his/her land and the surrounding watershed, as well as the constraints to market and credit accessibility. The policy and institutional constraints discussed above are beyond the scope of this Project and will be addressed in the Mission's Agricultural Development Project proposed for FY 1990, as well as the PL 480 Title I and ESF Programs. The Project will, however, address contracting and personnel policy reforms needed by the MNR to successfully implement this Project.

B. PROBLEM RESPONSE

The GOH and USAID have recognized the deforestation and environmental damage resulting from traditional cultivation and grazing practices on steep hillsides. Also there is a recognition of the economic plight of small scale farmers who work these terrains, as land fertility and productivity have declined. Technical assistance began in 1979 and 1980 to address these concerns through the Natural Resources Management Project (NRMP) and the Rural Technologies Project (RTP). These activities have had a limited scope and geographic scale, with the objective of exploring and trying technology improvements which would be acceptable to hillside farmers and which would arrest erosion, protect water resources, enhance and sustain fertility and increase small farmer productivity, production and incomes.

Both of these projects used relatively decentralized, grass-roots level extension methodologies to develop and promote the use of improved agricultural production and appropriate technology packages among farmers, and among rural entrepreneurs in the case of the RTP. These approaches have helped to enhance wise resource use, and have resulted in substantial productivity gains for approximately 25,000 families, and broad acceptance among participants and counterpart agencies.

Both the RTP and NRMP have undergone external evaluations and audits in recent years. Evaluations have shown that both projects have provided highly positive benefits relative to costs, and have been successful in reaching the rural poor target groups with income-increasing technologies

related to production, post-harvest care, soil and water conservation, etc. For example, it is estimated that these projects in 1987 alone provided average annual net income increase (farm level value-added) of around L500.00 for approximately 19,000 participating farm families. This figure would have been higher, but the southern half of Honduras was hard-hit by drought during a critical part of the second crop season.

While the successes of these two projects are being emphasized in the development of LUPE, their problems have not been ignored in considering the operational base for the new project. Indeed, both projects have provided a series of "lessons learned" that are reflected not only in the design of LUPE but in current operations of RTP and NRMP as well. Examples are these:

1. That affordable changes in farming techniques and practices can limit or stop damage to soils and water resources.

2. That these changes can result in increased production and productivity by the farmer.

3. That alternative methods of technology transfer need to be considered and tried to ensure economic feasibility. It is clear that the large numbers of people required to do the job precludes costly and elaborate cadres of professional extension agents. Low salaried "para-technicians", advised and supported by limited numbers of professional extensionists is the method of choice for LUPE.

4. Extensionists and "para-technicians" need to be generalists in integrated hillside farming systems and technologies rather than narrow technical specialists, if they are to be credible and effective in advising and motivating hillside farmers. The generalists require the support of specialists further up the extension chain.

5. In addressing the problems faced by hillside farmers and planning solutions, a two-way flow of communication is essential. Farmers' problems need to be articulated by the farmers themselves, and ideas and strategies for correcting problems must have farmer participation to assure feasibility and acceptance.

6. That particular attention needs to be given to appropriate training and orientation of female extensionists and "para-technicians".

7. That there is room for diversification of secondary crops, especially edible fruits and vegetables which can provide marketable production to small scale farmers and improved nutrition to subsistence farmers.

8. That simplified forest management plans for fuelwood and saw timber production in small areas are desirable.

9. That for measurement of project success, there needs to be care in developing base-line information, a feasible data collection and analysis system, and an appropriate data management and reporting mechanism.

10. That for efficient implementation and impact, project activities need a substantial degree of independence from bureaucratic constraints and processes found in most ministries.

These "lessons learned" from the experience of NRMP and RTP have been carefully taken into account in the design of LUPE to ensure that LUPE activities will continue proven technologies and will be responsive to verified needs and opportunities.

C. PRIORITIES

The concepts and planning for LUPE have carefully been evaluated for consistency with Honduran priorities and strategies and with USAID policies, priorities and strategies.

1. Government of Honduras Priorities

The Project is consistent with the agriculture sector policy statement contained in the Honduran National Development Plan for 1987 to 1990 and with expected GOH sector policies through the year 2000. The effort highlights the policy of improving the process of technology transfer, increasing productivity, and rationalizing use of natural resources as priorities. The National Development Plan calls for support of projects oriented towards natural resources management, integrated rural development, the proper use of water resources to increase production, and the increase of agricultural production through appropriate technology transfer, thereby assuring the availability of food to the populace.

For the past eight years, the Government of Honduras (GOH) has supported the Natural Resources Management and Rural Technologies projects, upon which this Project is based. The GOH, has adopted the extension methodology of the NRMP for the Ministry of Natural Resources (MNR) central and southern regions and has used it as a basis for developing a unified methodology for agricultural extension in Honduras. The government's agriculture policies, e.g. outreach and services to small farmers, strongly support the proposed activities, and LUPE will continue to support implementation of these established GOH agricultural policies.

2. National Bipartite Commission on Central America (NBCCA)

The LUPE project speaks directly to one of the major recommendations made in the NBCCA report, that of accelerating agricultural development. Among the specific measures recommended for achieving accelerated agricultural production, are two measures which will be directly

addressed by LUPE: (a) increased extension services specifically targeted to crops for the domestic market; and (b) activities for checking deforestation and degradation of the environment.

LUPE's extension outreach and interventions will improve the capability of the small hillside farmer to increase production and productivity of basic grain and diversified crops for the domestic market. Furthermore, the soil and water conservation measures, agroforestry and improved livestock practices contemplated under LUPE will reduce deforestation and environmental degradation. Finally, LUPE interventions will provide greater food security for hillside families and other domestic consumers.

3. USAID Mission Strategy and Action Plan

a. USAID Honduras FY 1990 Action Plan and CDSS

The Project is designed to address the Mission's Action Plan Objective of increasing agricultural production by adding $228 million to real agricultural GDP from 1985 through 1992, under the overall programmatic goal of encouraging basic structural reforms leading to rapid and sustained economic growth. The components of this Project will support that objective through the provision of technical assistance, training, commodities, administrative support and credit in the form of technological packages to farmers. Concrete ways of measuring the impact of the methodologies and inputs will be: increased overall farm enterprise production, including crops, livestock and timber products; increased farm income; improved market information and access. In addition, the project will contribute to Honduras' environmentally sound management of natural resources. Measurements include: hectares managed for sustainable yields; and number of small farmers using soil conservation measures.

Over the life of its project, LUPE will produce an increase of 50,000 hectares in hillside lands managed for sustainable yields through the use of improved soil and water conservation and forest management practices. Table 1 demonstrates LUPE's contribution to specific performance indicators of this Action Plan objective.

TABLE 1: LUPE Contribution to Action Plan Objectives

Action Plan Objective

No. 1: Increasing Agricultural Production by Adding $228 million to Real Agricultural GDP from 1985 through 1992.

	ACTION PLAN TARGETS		LUPE TARGETS	
	1989	1990	1989	1990
Program Performance Indicators				
o Real Value Added of Agricultural Assisted Programs (US$000)	34,628	47,227	0	963
o Hectares of Agricultural Land Managed for Sustainable Yield under A.I.D.-supported programs	4,550	6,330	3,000	4,300
o Small Farmers Using:				
- soil conservation practices	15,000	18,000	3,000	4,300
- improved technologies	9,000	9,000	3,000	4,300

The LUPE Project will also complement the Mission's Action Plan objective of increasing and improving participant training. Under LUPE extensionists, paratechnicians, contact farmers and specialized support technicians will receive long- and/or short-term training in the United States, Honduras and other countries in the region.

The LUPE Project fully supports the Mission's Country Development Strategy Statement (CDSS-May 1984) which emphasizes continued support to help small farmers achieve minimum food security through the use of appropriate production technology, improved farming practices and land conservation techniques.

b. Agricultural Sector Strategy

The agricultural strategy identifies three principal constraints to improving the performance of the sector and enhancing the well-being of the rural population:

1. the price structures facing the sector;

2. the sector's resource base: degradation of it and inefficient use of it;

3. the structures for access to technologies and markets, including access to both inputs and output markets for producers and access to food for low income consumers.

Through ESF, PL-480, and the proposed 1990 Agricultural Development Project, the Mission plans a significant effort in policy dialogue to achieve reforms in the pricing regime. LUPE is not directly tied to policy reform conditionality because (a) the achievement of its objectives is not constrained by policy issues and (b) the $5.0 to $6.0 million disbursements per year are likely to be inadequate to provide sufficient leverage for effective major policy reforms at the macro or sectoral levels. It should also be noted that policy conditionality to be effective requires on analytic and monitoring capacity beyond that reasonable for inclusion in LUPE. A major part of the on-going portfolio is directed towards improving access to input and output markets: technological inputs through the Honduran Foundation for Agricultural Research (FHIA), Fondo Ganadero, Irrigation Development, Rural Roads, Coffee and RTP Projects; access to financial markets through the Small Farmer Organization Strengthening (SFOS) Project; and access to output markets through the FEPROEXAAH (FPX) component of the Export Development and Services Project.

The resource constraint involves both the deterioration of the resource base through nonsustainable land expansion technologies as well as the inefficient land use patterns. Inefficient land use patterns are, in large part, manifestations of policy distortions, and will be a major focus of the planned Agricultural Development Project, PL 480 and ESF Programs.

The continued deterioration of the physical resource base is inextricably linked to the well-being of the marginal small farmers.

Marginal small farmers number about 150,000 families based on projections from the 1974 Agricultural Census. The average farm family income ranges from L987 for the 0-2 hectare farm size class to L1,432 for those with 2-3 hectares. Off-farm income contributes 39 percent and 28 percent of this income, respectively. Their farms are heavily devoted to annual crops, primarily basic crops for their own subsistence; however, they are both sellers and buyers of these "subsistence" crops. They farm their small properties intensively both intercropping and double cropping, with little fallow, nonuse or pasture.

The dilemma of the marginal small farmer lies in (1) the misuse of natural resources and (2) the inability to compete effectively with more affluent farmers. Honduras has let its abundant land area absorb the increase in numbers of small farmers of limited resources. These small farmers have taken over marginal hillside lands better suited for forests and have cleared and cultivated these areas for their own subsistence without regard to the fragility of the resource.

The poor quality of their land and their inability to acquire productive inputs or financing, even if they could take the risk of significant credit, prevent them from competing on equal terms with commercial farms. Programs that stimulate production of basic food crops through high levels of technology tend to worsen their conditions, since the increased volume produced by more affluent farmers reduce their benefits.

In abundance and dispersion, the marginal small farmer is the most critical aspect of the rural problem, yet this labor is Honduras' most abundant resource. The marginal small farmer has no near term alternative but to remain on his/her land; there is neither opportunity for employment in the city nor new land for settlement. Exploitation of the land resource, either through colonization or redistribution, can no longer absorb and obscure this problem.

On the other hand, failure to improve productivity by methods that are sustainable doom the small farmer eventually to join the ranks of the landless laborer or the urban poor.

Marginal small farmers are unable to accept significant risk. This prevents them from using technology that requires large amounts of purchased inputs. Similarly, it should prevent them from leveraging their farming operations through the use of credit. Marginal small farmers should be encouraged to adopt low-cost but productive conservation technologies that will permit them to achieve modest yield improvements and stay on the land. The near term objective must be to enable them to remain where they are, without further damaging the land resource, while alternative opportunities are generated.

D. COMPLEMENTARY USAID ACTIVITIES

In addition to the NRMP and RTP projects, the Mission implements several other projects which relate thematically to this new endeavor. The LUPE Project will seek to collaborate with the following projects:

1. Small Farmer Land Titling (522-0173). LUPE will have an opportunity in certain areas, to follow recent land titling efforts with production/conservation interventions for newly titled small farms. This will provide a chance to compare farmer responses to these technologies with and without secure land title.

2. Irrigation Development (522-0268). The NRMP collaborated closely with this Project in the execution of several small-scale irrigation projects, to the benefit of both projects and the farm community. We expect such collaboration to continue through the fostering of close ties between the two projects with continued construction of irrigation systems and provision of credit under the Irrigation Financing Facility.

3. Forestry Development (522-0246). The NRMP is opening up a new field extension unit in the La Unión, Olancho, in full cooperation with this Project. LUPE will continue the extension presence in this area, and expand into other areas affected by the Forestry Project.

4. Policy Analysis and Implementation (Proposed 522-0325). Although selected public policies affecting agriculture could have impacts on the LUPE target group, it would be inappropriate to link any of these, as conditions, to a ground-level extension project like LUPE. However, the Mission will be moving ahead in the near future with specific interventions in the policy area, and potential impact of selected policies on the LUPE target population and on the natural resource environment will be carefully considered in project implementation.

5. Human Resource Development. Initiatives in public health and rural education, while not linked directly to LUPE, have been taken into account in design and implementation planning. Nutritional status is a criterion for site selection, and is one of the indicators that project information and evaluation systems will monitor. Education in technical and environmental areas is a key to LUPE's success.

6. Other Related USAID Activities

The activities under the Communications for Technology Transfer in Agriculture (CTTA) Project, will provide valuable experiences and ideas for the execution of certain activities under the LUPE Project. The CTTA Project formulates innovative approaches such as using mass media for identifying farmer needs and mobilizing appropriate adaptive research and extension resources in response. Three other small-scale research projects being implemented through the Panamerican Agricultural School (EAP) at Zamorano also offer strong possibilities for collaboration with the project. The Sorghum-Millet CRSP, the Bean-Cowpea CRSP and the Integrated Pest Management (IPM) Project have all made significant strides in research that could prove highly beneficial to small-scale basic grains producers. The LUPE Project can provide an appropriate outreach mechanism for delivering these important technologies throughout the country. (In addition, it is anticipated that

increasingly close ties between the EAP and the NRMP for improving resource management in the Leguare Valley watershed will continue to expand under LUPE.)

It is expected that selected services such as those identified above will be contracted for, as appropriate and as needed (see Annex E: Institutional Analysis and Implementation Approach for a detailed discussion).

E. RELATIONSHIP TO OTHER DONOR ACTIVITIES

The Inter-American Development Bank (IDB) funds infrastructure projects such as hydroelectric and potable water supply dams and reservoirs. Project activities focused on soil conservation on farm land and management of public pasture and forest land would be well received in the deteriorating watersheds of these projects. The IDB has also financed integrated rural development projects in Copán, Ocotepeque and Lempira. The Swiss Government has supported similar activities in portions of Valle and La Paz departments. The World Bank (IBRD) has initiated in late 1988 their Fourth Agricultural Credit Project which provides $25 million dollars for agricultural credit (livestock development, orchard and tree crop establishment, land conservation and improvement, on-farm storage, farming machinery and agroprocessing facilities), and special studies. In addition, the World Bank and the GOH are preparing two structural adjustment loans in the agricultural sector for the period of FY 1989-FY 1990, as well as a series of sector adjustment operations in among others the agricultural and trade policy areas. This series of adjustment operations will be carried out in the period of FY 1989-FY 1991 and will consists of approximately $400 million dollars in financing. Both the RTP and NRMP have collaborated successfully with the Peace Corps agriculture and natural resources programs in Honduras.* The LUPE Project will continue this approach. These and other relevant activities have been taken into account for formulating site selections for LUPE activities.

III. PROJECT DESCRIPTION

A. GOAL AND PURPOSE

The goal of the Project is to improve the socioeconomic well-being of the Honduran rural family.

The purpose of the Project is to improve hillside agricultural production and productivity on a sustainable basis, including the management and effective protection of Honduran natural resources on which production depends.

* Under both projects, PCVs individually joined several different interdisciplinary field teams, participating actively in activity planning and implementation. NRMP has requested additional PCVs for 1989 to work in irrigation and agricultural extension.

B. PROJECT AREA AND APPROACH

1. Problem Summary

As indicated in Section II above, the majority of Honduran farm families have been relegated to the farming of small hillside plots which average less than 2 hectares of relatively fragile and shallow soils. These same families have incomes that are well below the absolute poverty level. Poor nutrition is a chronic problem. Up to 40% of children under five suffer from some form of malnutrition. The map (Figure No. 1), Classification of Degree of Malnutrition by Department on the following page depicts the areas where malnutrition is at its worst. Farmers practice shifting cultivation which is extremely damaging to the resource base and which results in a declining cycle of yields and productivity. Average yields are estimated at 13.3 quintales (a hundred weight)/ha and 10 quintales/ha for corn and beans, the two principal crops respectively. Traditional farm practices result in deforestation, soil loss, fertility loss, loss of the water holding capacity of soils, and downstream siltation and erosion. The majority of these producers have no alternative but to continue to cultivate these fields, and most of them have never received any form of technical assistance to improve their practices.

Since the majority of basic grains and vegetables for local consumption is produced by the relatively inefficient small farm sector, it is clear that agriculture's contribution to the economy can be greatly increased if existing low technology production systems are transformed into moderately more productive systems. It is also clear that unless immediate and widespread actions are taken to improve the management of the natural resource base, the future of the agriculture sector is in question.

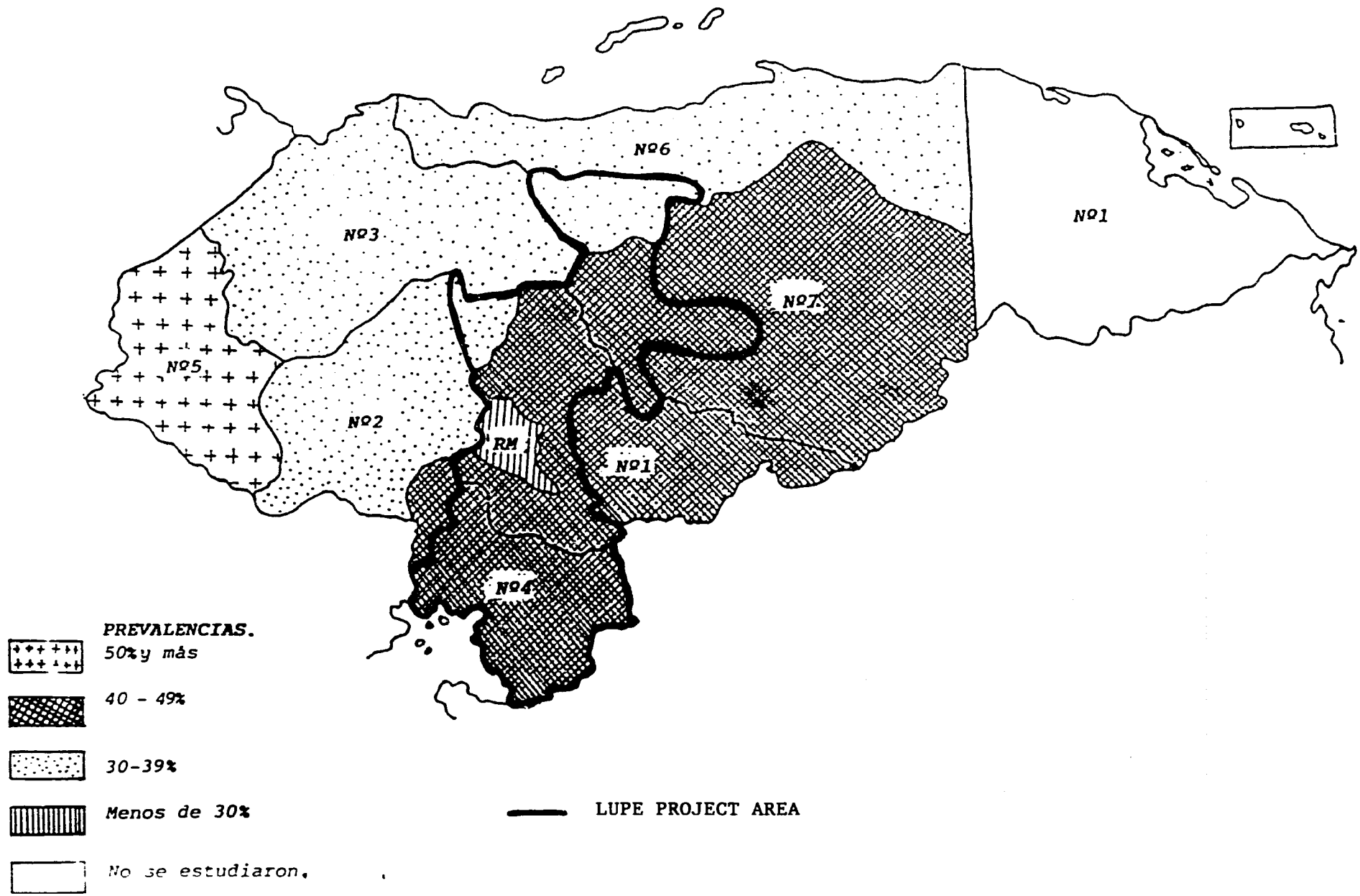
2. Project Strategy

Within the overall framework of GOH and A.I.D. priorities identified in Section II above, this Project continues a long-term commitment by the GOH and the U.S. Government to improve production, productivity, and resource use in the Agricultural Sector. The Project's dual objectives are enhanced productivity and improved resource conservation, or sustainable production enhancement. The Project will reach 50,000 farm families with a series of proven and innovative production interventions, utilizing a delivery system that builds on past success, and draws upon (1) the Ministry of Natural Resources' (MNR) outreach mandate and unified extension methodology and (2) the proven record of selected NGO's and other governmental and nongovernmental agencies in Honduras.

The MNR has substantial experience under the NRMP and RTP, and has both the legal mandate and institutional presence at the regional level to undertake an extension effort of this magnitude, for the intended target group. With respect to the use of Nongovernmental Organizations (NGOs), the Mission has observed and experienced very successful NGO

FIGURE Nº1

CLASIFICACION DE LAS REGIONES DE SALUD SEGUN LA PREVALENCIA DE DESNUTRICION GLOBAL DE ACUERDO AL INDICADOR PESO/EDAD EN NIÑOS MENORES DE 5 AÑOS. MINISTERIO DE SALUD PUBLICA ENCUESTA NACIONAL DE NUTRICION, HONDURAS 1987



implementation of agricultural and conservation extension activities in certain geographic areas, several of which fall within the proposed project areas. Such NGO experience will be utilized, where appropriate. In addition to taking advantage of NGOs in extension for selected areas, other NGOs can provide LUPE with vital research results and special technical resources via interinstitutional agreements or contracts that will reduce development costs for LUPE and eliminate any need to duplicate already existing capabilities (see Annex E for detailed discussions).

Key components of the proposed strategy for implementing the Project follow. First, the project seeks to institutionalize change at the farm level, and not necessarily at the ministerial level. That is, LUPE is not designed as an institution-building project with the MNR (although in many aspects the MNR will be strengthened), but as an impact-oriented project emphasizing sustainable production and productivity gains among the target population.

Secondly, the 50,000 farm target group is among the 200 to 250 thousand farm families categorized in the Draft Agriculture Sector Strategy as Marginal Small and Commercial Small farmers. Marginal Small Farmers, defined in a preceding section (p. 12) make up the majority of the target population. However, commercial small farmers (among them a lesser number of small scale rural entrepreneurs) also make up a significant component of the target group. Commercial Small Farmers have holdings that average around five hectares, but more importantly, they (1) consistently produce a marketable surplus, (2) are involved in diversified production, and (3) are more willing and/or able to incur risk. The Project will reach these families via a network of up to 90 extension agencies staffed by at least four extensionists each, and supported by regional coordinators, technical specialists, and administration. Up to 80 of these field units will be stablished and administered by the LUPE Project Office, and around ten will be administered by selected NGOs under agreements with the MNR. The nucleus for project start-up will be the NRMP, with selected personnel and operating modifications.

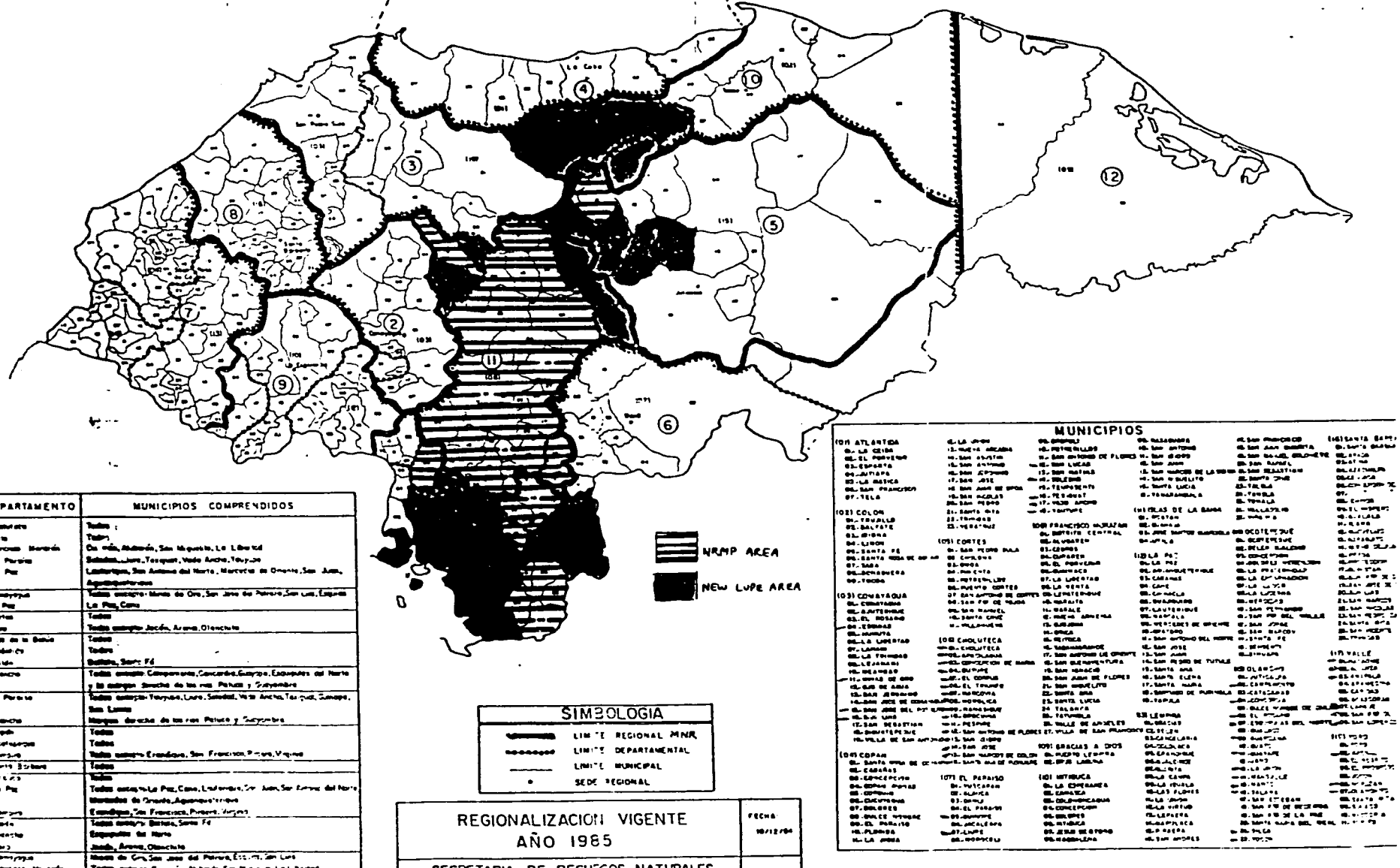
It merits mention that the Project Strategy does not include interventions in the shrimp mariculture sector as contemplated at the PID stage. The decision to eliminate this activity area was based on (1) very high cost of proposed activities; (2) the probability that MNR will work with BID on a project for small and medium shrimp farmers; (3) decision to consider making shrimp a high priority industry for FEPROEXAAH (Project 522-0207) support, and (4) inappropriateness of combining hillside agriculture and estuarine shrimp culture in one project.

a. Project Area

The project area covers 17,825 square kilometers and contains portion of Francisco Morazán, Choluteca, Valle, Yoro, Comayagua, Olancho and El Paraiso Departments (See Figure 2: Delineation of Proposed LUPE Field

Sites). This area constitutes significant portions of the watersheds of five of the ten major river systems in Honduras: the Choluteca and Nacaome, which discharge into the Pacific; and the Aguan, Sulaco, and Guayape, which discharge into the Atlantic. It also contains part of the Negro River watershed. It is anticipated that LUPE may expand into limited additional areas in response to particular needs, as determined by the mid-term evaluation and a thorough assessment of proposed additions in the context of site selection criteria.

FIGURE 2: DELINEATION OF PROPOSED LUPE FIELD SITES



Nº	REGION	DEPARTAMENTO	MUNICIPIOS COMPRENDIDOS
1	SUR	Chinandega Nueva Francisco Morazán El Paraíso La Paz	Todos ; Todos Choluteca, Alubarén, San Miguelito, La Libertad Soledad, Lepaterique, Texiguat, Vado Ancho, Yauyupe Langue, San Antonio del Norte, Marcovia, Orocuina, San Juan, Apacilagua, Namasigüe
2	CENTRO-OCCIDENTAL	Comayagua La Paz	Todos excepto: Minas de Oro, San José de Potrero, San Luis, Esquipulas La Paz, Cane
3	NORTE	Cortés Yoro	Todos Todos excepto: Jocón, Arenal, Olanchito
4	LITORAL ATLANTICO	Islas de la Bahía Atlántida Colón	Todos Todos Balfate, Santa Fé
5	CENTRO-ORIENTAL	Olancho	Todos excepto: Campamento, Concordia, Guayape, Esquipulas del Norte y El Rosario, Dentro de las cuencas Patuca y Sulaymbro
6	SUR-ORIENTAL	El Paraíso Olancho	Todos excepto: Yauyupe, Liure, Soledad, Vado Ancho, Texiguat, Guinope, San Lucas Manguen, dentro de las cuencas Patuca y Sulaymbro
7	OCCIDENTAL	Copán Ocotepeque Lempira	Todos Todos Todos excepto: Erandique, San Francisco, Piraera, Virginia
8	NOR-OCCIDENTAL	Santa Bárbara	Todos
9	SUR-OCCIDENTAL	Intibucá La Paz Lempira	Todos Todos excepto: La Paz, Cane, Lauterique, San Juan, San Antonio del Norte, Marcovia, Orocuina, Aguanqueterique Erandique, San Francisco, Piraera, Virginia
10	NOR-ORIENTAL	Colón Olancho Yoro	Todos excepto: Balfate, Santa Fé Esquipulas del Norte Jocón, Arenal, Olanchito
11	CENTRAL	Comayagua Francisco Morazán El Paraíso Olancho	Minas de Oro, San José del Potrero, Esquipulas, San Luis Todos excepto: Curarén, Alubarén, San Miguelito, La Libertad Guinope, San Lucas Guayape, Concordia, Campamento
12	ORIENTAL	Gracias a Dios	Todos

The selection of the project area for LUPE was based on a joint analysis carried out by USAID staff and an interministerial group of Honduran counterparts,* and was made based on consideration of the following criteria:

	Criteria	Evaluation Weight Points
1.	Areas not being attended by similar projects	20
2.	Areas with accelerated resource degradation, and/or near hydrographic watersheds of importance	15
3.	Farm population density	15
4.	Areas with substantial hillside farming	10
5.	Areas with potential for agricultural, agroindustrial, or artesanal development	10
6.	Socioeconomic and nutritional status	10
7.	Areas with existing infrastructure (chiefly transportation)	5
8.	Areas of high priority for the GOH	5
9.	Degree of interest by target beneficiaries in participating	5
10.	Areas with potential for converting small farmers into more commercial, credit worthy producers	5
	TOTAL POSIBLE	100

	CRITERIA	1	2	3	4	5	6	7	8	9	10	TOTAL
	WEIGHTED POINTS	20	15	15	10	10	10	5	5	5	5	100
1.	West	8	14	11	10	10	10	4	5	4	4	80
2.	Santa Barbara Dept.	12	15	13	9	8	10	5	5	4	4	85
3.	South West	16	12	12	9	9	10	3	5	4	3	83
4.	Upper Aguan	20	15	11	6	8	9	4	5	4	4	86
5.	Olancho Highland	20	11	14	9	8	9	4	4	4	3	86
6.	Central Region	12	11	10	9	7	8	4	5	4	5	75
7.	Valle/Chol. Dept.	16	15	12	9	6	10	4	5	4	5	86
8.	Comayagua Highlands	20	12	12	9	8	8	4	3	4	2	82

* Including representatives from the Ministries of Natural Resources, Health and Economy.

Based on the analysis, the upper Aguan, the Olancho highlands, and the South (Valle and Choluteca) each received an average of 86 points, which was the highest rating. Hence, LUPE at least in initial years, will concentrate in these areas.** Within each of these areas, LUPE will concentrate on hillsides where the poorest farmers live, where yields are low and agriculture production services are limited. This, in general, is the group with the highest levels of malnutrition in each area.

These areas contain sites with widely differing physical and socioeconomic characteristics. However, since LUPE will concentrate only on hillside lands having slopes of at least 15 percent, it is possible to generalize with respect to certain characteristics. For example, the project area is primarily mountainous, with relatively shallow and fragile hillside soils. Land tenure is characterized by small holdings typically without secure title. Rainfall is bimodal, with distinct rainy and dry seasons, and most hillside areas are already suffering from serious degradation or are in immediate danger of further degradation. Physically, the area contains arid hillsides and low mountains adjacent to the coastal plains of the South (Choluteca and Valle), and interior highlands whose natural vegetation in most areas is predominately pine or mixed pine and broadleaf forest.

Principal crops in all of these areas are basic grains (corn and grain sorghum with some beans in the South; corn and beans further North), although some hillside producers are experimenting with nontraditional crops (usually vegetables for market). Most farmers have a very few head of livestock (often a cow, oxen, donkey, or horse) and/or small animals (chickens). About 75 percent of these farms are under 5 hectares in size, and of these small farms, the average size is 2 hectares (Honduras Country Environmental Profile, USAID, 1982). It is recommended that an upper size limit of 20 hectares be placed on LUPE participation. Very few farms approaching this size will be encountered in Project areas. However, often a larger, more successful farmer is viewed as a local leader of the farm community, and by involving such individuals in innovative activities, it is easier to motivate other members of the community to participate. Exceptions to this limit will be approved by the LUPE regional office.

** In reference to Mission interest in working toward reducing high malnutrition in rural areas and collaboration with the Health Sector II Project, even though LUPE will not be working in Western Honduras, where the highest index of malnutrition is found, it should be mentioned that all of the areas in which LUPE will enter are extremely poor and contain nutrition risks much higher than any regional average. The Project's mid-term evaluation will examine the possibility of moving into new geographic areas and, depending on the degree of success, will give priority to areas of greatest poverty, malnutrition, and degree of small hillside farming.

b. Beneficiary Focus

The proposed beneficiaries will include approximately 50,000 farm families from among the rural population of the target area. Approximately twenty-five percent of these farm families will be female headed households. These families are characterized, in general, by low income (approximately $100 to $250 annual per capita income for the target population); relatively low levels of nutrition; and poor access to basic services such as education (typically little access to schools beyond primary grades), electrification, transportation, health services, and markets. Farms are predominantly on hillsides (containing lands with at least a 15% slope), and held without secure title. Most are heavily devoted to annual crops, primarily basic grains (corn, beans, sorghum) for on-farm consumption and sale. Some small commercial farms in the vicinity of urban areas are partially diversified, producing some crops specifically for certain markets.

The size of the target group (50,000 farmers) was derived based on experiences with similar extension projects and a series of assumptions regarding project expansion and efficiency. (See the following section, "Extension Outreach Strategy")*

Experience has shown that after project activities in a community are well established, many participants come in to express a desire to participate. However, at the outset, "recruitment" depends largely on physical location, since a first step when considering a new project area is to prepare a diagnostic study of the area which results in the designation of selected high-priority communities for immediate project attention.

Extensionists organize meetings and participatory presentations to introduce farmers in the priority areas to the Project. Invariably, there will be skepticism, but a few participants will come forward, induced by curiosity, attitude, perceived gain, or some other incentive. These first "progressive" farmers are then assisted in developing limited portions of their farms into demonstration areas where the results of new systems can be compared to traditional ones.

Participating farmers are encouraged to form groups within the community. These groups become a useful mechanism for spreading the benefits of the project and for discussing problems and providing feedback to extensionists. Mass media approaches involving radio and press resources are expected to be utilized as a component of farmer recruitment and training as well, but the field extensionist will remain the key to building and maintaining recruitment.

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* Farmers currently participating under NRMP or RTP will not be included in this 50,000 farmers, unless they received no technical assistance in soil conservation under the two former projects.

Once farmer groups in the highest priority "subwatersheds" are active, the extensionist can spend a portion of his/her time in reaching secondary areas within the geographic limits of that extension agency. It is assumed that, due to the isolation of many project sites and the complex series of interventions contemplated, each LUPE field extensionist will recruit an average of 25 new farm families per year. Given projected expansion plans, LUPE should be reaching over 50,000 families by year 8.

Table 2 illustrates the anticipated recruitment of beneficiaries. Assumptions regarding extension efficiency and project expansion are articulated in footnotes to the table and are self-explanatory.

TABLE 2: PROJECTED RECRUITMENT OF FARM FAMILIES INTO LUPE BY PROJECT YEAR, ON ANNUAL AND CUMULATIVE BASES

		PROJECT YEAR							
	Basis	1	2	3	4	5	6	7	8
Participating Farm Families Recruited Into LUPE via MNR Field Extension Offices 1/	Annual	3,000	4,000	5,000	6,000	7,000	8,000	8,000	8,000
	Cumulative	3,000	7,000	12,000	18,000	25,000	33,000	41,000	49,000
Participating Farm Families Recruited Into LUPE via NGO Field Units 2/	Annual	-	300	600	1,000	700	400	-	-
	Cumulative	-	300	900	1,900	2,600	3,000	-	-
Total Farm Families Recruited Into LUPE	Annual	3,000	4,300	5,600	7,000	7,700	8,400	8,000	8,000
	Cumulative	3,000	7,300	12,900	19,900	27,600	36,000	44,000	52,000

1/Assumes LUPE begins with 30 field offices, and adds ten offices per year until maximum of 80 is reached in year 6. Each office has minimum of 4 extensionists, each of whom reaches an average of 25 new farm families per year.

2/Assumes LUPE contracts with NGO for special extension services in selected areas at following rate:
(a) Operation of three field units for three years beginning year 2.
(b) Operation of three new field units for three years beginning year 3.
(c) Operation of four new field units for three years beginning year 4.
Each unit is expected to recruit 100 farm families per year during three-year contract period.

c. Extension Outreach Strategy

The LUPE Project follows the traditional (but often reversed) pyramidal structure for effective extension, with a relatively small administrative unit at the top of the pyramid, a staff of qualified and mobile specialists and coordinators in the middle, and a large corps of extensionists interacting with a larger group of participants at the bottom. For purposes of planning and evaluation, "bottom-up" communications are extremely important, and the approach developed under the NRMP and RTP which emphasizes farming systems and farmer participation will be continued.

All of the activities articulated under section III C. Project Activities (below) will be administered via a technologies extension framework that is based on the successful outreach mechanism employed under the NRMP, (see Figure No. 3: Community Based Extension Process) with appropriate modifications to broaden the technology base and bring the delivery system in line with the MNR's Unified Methodology for extension. (In that sense, LUPE is essentially a "one activity project.") Beginning with the 30 existing NRMP units, LUPE will add ten per year in order to establish a network of 80 field extension offices under MRN auspices by year 5, and will contract with appropriate local PVOs for the establishment and operation of approximately 10 additional field units.

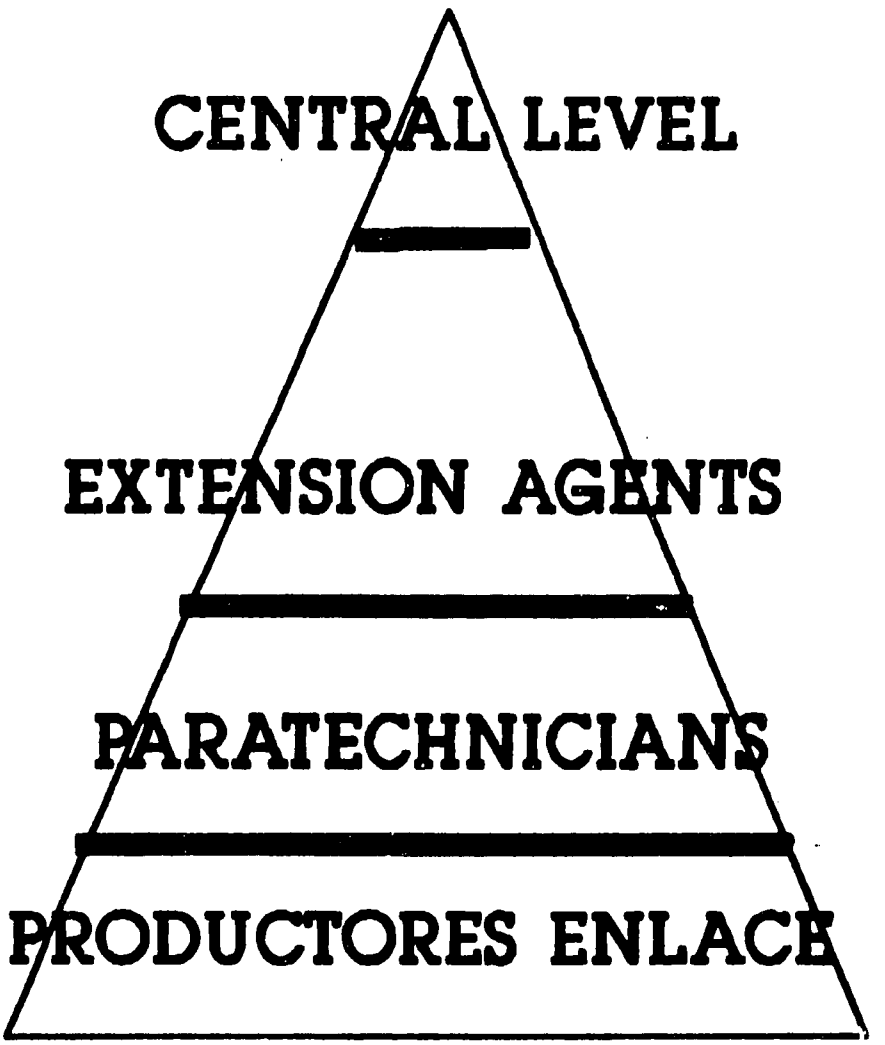
Extension and training will be the principle tools for technology delivery and transfer in the Project in each of the activity components. LUPE will build on the successful methodologies developed by the NRMP, RTP and other projects, including a grassroots approach to extension outreach that relies on para-technicians and contact farmers and homemakers (agricultores enlace) to help deliver technical information and services at the farm level. The focus of extension at the community level will promote practical "hands-on" skills training that will enable LUPE participants to adopt and implement project generated technologies. (See Annex F, Part 2 for elaboration)

d. Strategy for Accessing Special Services

While the lead counterpart institution for the Project, the MNR, has certain capabilities in many areas relating to LUPE initiatives, there are nevertheless several technical areas for which in-house capabilities are minimal or nonexistent. Since such technical expertise is available from other sources in Honduras, and elsewhere, there is no need for LUPE to attempt to duplicate existing capabilities by investing project funds in an effort to establish such capacity temporarily within a dependency of the MNR. Rather, LUPE will pursue a strategy of gaining access to special technical services (in research, training, or communications) from existing sources in either the private or public sectors, using project funds to contract for special services where appropriate.

NGOs will be selected by an open competition process, in which the Project will solicit proposals for the specific task, review the NGO submissions and select the best proposal which will then be contracted using host-country contracting (HCC) procedurs. The MNR has considerable prior experience with HCC action with such entities as EAP/Zamorano, Honduran Ecological Association

PERSONNEL DISTRIBUTION
LUPE



(AHE), the Water and Sanitation Authority (SANAA), Integrated Pest Management Program (MIPH), and other providers of personal and non-personal services.

Examples of such services would include (1) short-term training of extensionists in specialized areas such as pesticide management or agricultural credit, (2) laboratory analyses of soils or plant materials, (3) development of specialized, integrated pest management programs, (4) development of physical resource maps for diagnostic studies, (5) development of rural enterprises and credit facilitation services, and (6) integration of environmentally sound land management approaches for watersheds and buffer zones. Services such as these would be sought through host country contracting mechanisms from such leading sources as the Panamerican Agricultural School (EAP) at Zamorano, the Integrated Pest Management Project (MIPH/EAP), the National Cadastre Program, FHIA, other branches or projects of the MNR (i.e. UDA, CTTA), and national and/or international NGOs (i.e. Partners of the Americas/Honduras, World Wildlife Fund, etc.). Annex E, Institutional Analysis, provides further details regarding the execution of this approach for accessing the unusually wide variety of special services planned to support LUPE initiatives.

e. Project Planning, Monitoring and Evaluation

The dimension of the LUPE Project, as well as its complex task, requires a well defined institutional framework supported by a strong information and data network that allows all levels of the Project to have access to the information required to make well informed planning and implementation decisions.

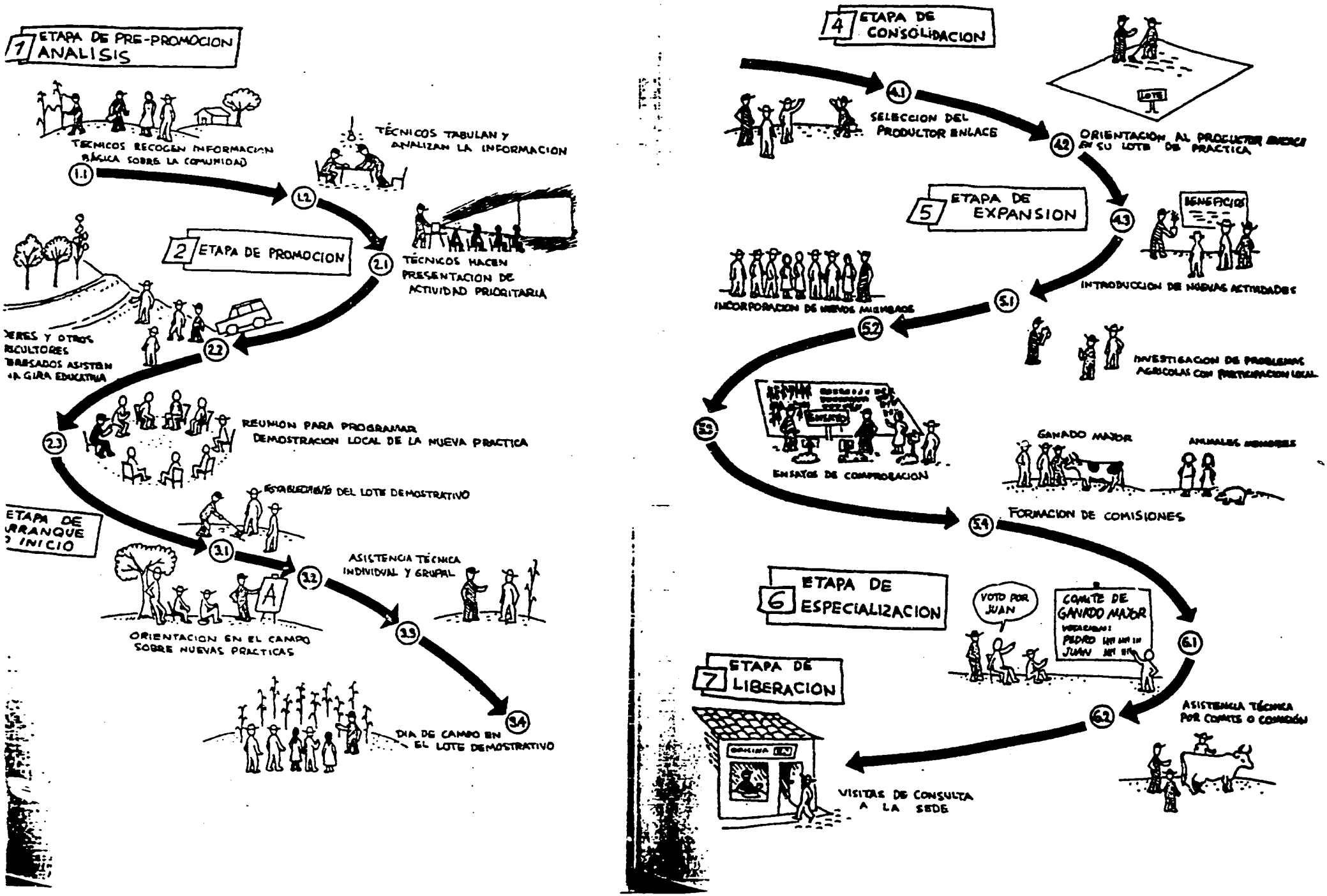
To meet this need the Project will establish a project Planning, Monitoring and Evaluation Unit (PMEU). The Unit will be housed in the Project Central Office, and will be directly responsible to the Project's Executive Director (see Project Organigram, Figure 5). The PMEU will be responsible for refining and implementing the Project Information System (planning, monitoring and evaluation) which is described in detail in Annex J. As necessary, Project technical advisors and PMEU staff will revise this system to assure that the system generates information adequate to measure achievement of project outputs, objectives, purpose and goal. The PMEU will seek to identify priority users of information and determine key indicators which can be used to answer questions from Project and A.I.D. management regarding progress, constraints and alternative technologies. During project "start-up", the PMEU will be tasked with preparing the Baseline Information System. This system will be a survey of baseline data (socioeconomic, geographic, biological, agricultural, etc.) of the project area and will be used to prioritize watersheds and specific community sites for LUPE interventions. The system will also serve as the basis for continuous project monitoring and the external evaluations.

Throughout the life of the Project the PMEU will serve as the Project's information center collecting, analyzing and disseminating technical information and project data to provide continuous feedback to all levels of project personnel but especially to the field staff. The PMEU will assemble data from various sources, the MNR, the Ministry of Health's nutrition surveys, etc.

The PMEU will build a base of information on the quality and quantity of activities occurring in the field. Information relating to project goal, purpose, objectives, and outputs will be gathered from the extension units on a monthly basis. The PMEU will synthesize the information and provide a summary analysis of implementation accomplishments back to the field units. Information gathered will be analyzed against annual and monthly projected implementation work plans in order to provide feedback to both central and field personnel, control over field activities, and insure adequate coordination and scheduling of field financial, training and other resource needs with that of the Central Office support. The PMEU information will be used to make mid-course corrections in the Project and assist in identifying the Project's impact.

The PMEU will also serve as coordinator of project activities with other MNR programs (such as the National Agricultural Research Program, Animal Health Program, Post Harvest Project, etc.), when the project implementation committee determines such coordination is necessary for improving implementation.

FIGURE No 3: COMMUNITY BASED EXTENSION PROCESS



f. End of Project Status (EOPS)

LUPE will have an eight-year project life and a cost of $50 million, of which $36.0 million will be the U.S. contribution and $14.0 million the GOH contribution. The Project will have a wider geographic scope than the NRMP, and a more intensive coverage than the RTP. LUPE will deliver direct benefits to 50,000 farm families, and within the dual objectives of production and resource management enhancement, will result in the following general achievements by the end of the eight years.

1. Five major watersheds in the LUPE implementation areas, including several of their tributary watersheds, will be better protected and more productive. 50,000 hectares will be placed under soil conserving practices.

2. 50,000 hillside farmers will enjoy greater productivity from stabilized natural resources on their farms, environmentally appropriate cultivation practices, and soil and water conservation measures.

3. Honduran hillside farming families will enjoy a more sufficient and constant food supply, reflected in yield increases of an average of 30%.

4. Beneficiary farm families will earn higher incomes through diversification of production and post-harvest interventions in on-farm storage (5,000 units) and processing, and marketing of surpluses.

5. Improvements to production and family incomes will result in a decline in levels of malnutrition as measured by (i) decreases in numbers of persons visiting health posts/units because of malnutrition and (ii) a decrease in the percentage of children under five in each project area who are two or more standard deviations away from a reference population for age for weight (wasting). Ministry of Health surveys carried out every three years will be the principal source of this information.

C. PROJECT ACTIVITIES

1. Activities and Rationales

a. Sustained Production Enhancement

Sustained production enhancement implies improvements in both agricultural practices and natural resources management. To effect such fundamental changes in the traditional agriculture sector requires an intensive effort utilizing trained field extensionists backed up by a body of technical specialists. While we have divided the following discussion into cropping and livestock sections, the approach and technology delivery mechanism are the same for both. This approach relies on the use of multidisciplinary teams of extensionists (technicians and "para-technicians") assigned to rural communities where they live among the clientele groups. These personnel (both men and women), working with farmers and with access to specialist staff, identify farm and community needs, and help develop and deliver an appropriate mix of technologies and other resources designed to help transform the small

farm into a more efficient sustainable productive unit. All of these extension activities will be carried out based on individual farm plans which are consistent with sound watershed management plans for the area.

1) Improved Cropping Systems: This element deals with hillside farming activities in soil and water conservation, production of basic grains, diversified crops, family and community gardens, and agroforestry. Experience of NRMP and RTP shows that by introducing a mix of appropriate technologies into traditional hillside farming systems significant sustainable increases in productivity can result. Most of the successfully tested and applied technologies of NRMP and RTP which have increased production of small scale agriculture will be continued within LUPE. New technologies will continue to be tested and where successful in addressing local problems, will be introduced. Among the more important technologies to be promoted will be these:

- Soil and water conservation technologies and structures which include contour furrowing; absorption ditches; individual terraces; narrow-based terraces (asequias); live (green) and dead (slash) barriers; grassed water ways and drainage canals; stone retaining walls; etc.

- Associated technologies which include change from traditional slash and burn to slash and mulch (reincorporating organic matter rather than incinerating); judicious use and incorporation of organic fertilizers and composts. Use of improved seeds and/or seed spacing; the use of minimum tillage techniques and green manuring to reduce the exposure of soil to rainfall impact and sheet erosion while increasing overall fertility; the saving and utilization of manures as organic fertilizer; application of integrated pest management strategies using enhanced land-use techniques (e.g. multi-layered, strip and alley cropping), non-viral biological controls, and controlled chemical usage; promotion of home and communal gardens and fruit production as a means to improve nutrition, provide diversification and where feasible, provide products for market; increased emphasis on small-scale on-farm water management including rustic cisterns and small irrigation systems.

- Development of site-appropriate agro-forestry systems, including applied technologies relating to forest protection, reforestation, appropriate harvesting methods, use of harvest wastes for mulch and firewood, appropriate intercropping, etc.

2) Improved Animal Systems: This element addresses range management, animal stock and agroforestry activities of hillside farmers. Current uncontrolled grazing practices of hillside farmers are resulting in serious damage to forests and other grazing areas with consequent erosion and loss of fertile top soils. These grazing practices are providing poor nourishment for farm animals. The NRMP has been highly successful in extending technologies for making more forage available to farm animals on a sustainable basis, and reducing damage by unrestrained livestock. LUPE will continue with these interventions. LUPE will promote an integrated approach of pasture, forage

and range management which will emphasize animal containment and cut and carry forage. This will reduce uncontrolled grazing, increase nutrition and weight, permit milking the year around and make manure readily available for composting and fertilizer. The Project will also continue NRMP initiatives in small animal production, and will make available to farmers badly needed technical assistance for these enterprises. Technologies to be promoted include these:

- Production of cut grasses for improved forage for livestock.

- Animal containment and cut and carry systems of feeding.

- Systematic rotational grazing for sustained pastures.

- Silvopastoral systems based on the appropriate combination of trees and pastures.

b. Post-Harvest Interventions

Under the NRMP there was no discrete activity for post-harvest interventions, although related activities in processing, fuelwood conservation (improved stoves), improved grain storage, and marketing have been implemented on a limited scale. The RTP has a much broader experience in these categories, and LUPE will draw heavily from this expertise. Improvements in post-harvest handling, processing and marketing will improve seasonal food availability for hillside farming families and enhance incomes. Major losses (averaging about 30%) occur in Honduras in the post-harvest stage. Considerable technological development has occurred in Honduras in both storage and processing, promoted by RTP and other projects. LUPE will continue in promoting these technologies with appropriate support from RTP and PVOs.

Hillside farming families depend on sale of that part of their production which is excess to immediate subsistence needs and storage capacity. At harvest times, farm gate prices are low and disadvantageous to the farmer. When they lack sufficient storage capacity, they must sell some (usually almost all) of their basic grains, only to have to repurchase at higher prices to meet later subsistence needs. That part which they retain for family consumption is subject to very high losses from pests and moisture. When they are able to produce diversified plants and vegetables they are faced with urgency to get their perishables to market, unfavorable farm gate prices and difficult and costly transport. While LUPE alone will not be able to resolve all marketing constraints which handicap hillside farmers, there are low-cost interventions which can help them to reduce post-harvest losses, improve subsistence security and enhance marketability of their agricultural production. Experience under the NRMP and PTR projects, has shown that women of farming families will be primary participants in post-harvest activities.

Post-harvest interventions will include these subjects:

- Technologies for pest-resistent secure storage of basic grains. Improved on-farm storage facilities.

- Post-harvest integrated pest management on farm.

- Appropriate processing technologies for sun drying fruits and vegetables and packaging for markets.

- Promotion of technologies for sorting and grading, packaging and storage of produce destined for markets.

- As economically appropriate, assistance to farmer producers in qualifying for credit, including assistance in applying for loans.

- Planning and construction of simple community produce collection centers to enhance marketing access.

2. Output Objectives

Based on the experience of NRMP and RTP, together with the institutional structure and inputs designed and programmed for LUPE, it is reasonable to project the following outputs as targets:

- A 30% increase in food grain production by 50,000 participating hillside farmers.

- An increase of 50,000 hectares in hillside lands under improved soil, water and forest management practices.

- Improved nutritional status of hillside farm families (250,000 people) as evidenced by decreased levels of malnutrition among children under five.

- Crop diversification, providing fruits and vegetables for more balanced diets, practiced by 5,000 farming families (about 25,000 people). An increase by 5,000 in family and community gardens planted by the women of participating communities.

- Marketable production in excess of subsistence needs of 5,000 farmer producer families. (Estimated to average 30% of total increased production of grains and diversified crops).

- Nursery production for agroforestry applications to total 6,000,000 multi purposes trees plus 500,000 fruit trees through development of 500 new community and small on-farm nurseries.

- A 10% increase in market value of farm animals produced by participating hillside farmers.

- Improved ground cover in 5,000 hectares of pasture and range lands.

- 5,000 farm families involved in improved small animal husbandry.

- 1,000 hectares of terrain which currently is over grazed returned to forest production or made available for cultivation or controlled grazing through silvo-pastoral techniques.

- Increased on-farm storage capacity for 2.5 thousand metric tons of basic grains produced by 5,000 farming families.

- Reduction of post-harvest losses due to spoilage and pests amounting to 3,000 metric tons.

- An increase of 3,000 farm families engaged in processes which will enhance marketability of their agricultural production, including preserving, grading, packaging and storage.

- A 20% increase in farm-gate sales by participating hillside farmers.

- Improved subsistence security and nutritional health for 50,000 families by reduction in post-harvest losses, self-sufficiency for subsistence, and dietary improvement through consumption of fruits, vegetables, and meat.

3. Inputs Programmed for LUPE

In order to achieve its outreach objectives, LUPE will require a trained extension service supported by qualified technical specialists, technical advisory assistance, transportation for outreach activities, demonstration and other equipment and commodities, an activity monitoring and impact evaluation capacity, and resources for operations. Total estimated project (GOH-AID) life-of-project (LOP) costs will include the following:

a. Technical Assistance:

- Expatriate technical advisors, 165 person months, (to include an extension advisor 72 person months, a hillside technologies advisor 48 person months, and 45 person months of short term consultancies in areas such as women in development activities, horticulture, processing/marketing, agricultural credit, information management, and environmental monitoring). $2,970,000

These technical advisors will be called upon not only to provide advisory services to their counterparts, but to participate directly in establishing an effective extension system by designing and presenting training courses for extensionists, helping to update or draft technical manuals, and providing direct OJT to counterpart. They will also assist in the preparation of specifications for local technical services from NGO's, and will collaborate with their counterparts in the oversight of such services, once contracted.

- Other advisory services utilizing technical resources in Honduras 3,908,000

As indicated in Section III. B.2, above, numerous technical or research services not available within the MNR - but available in Honduras from other sources -- will be required to implement LUPE. Rather than attempt to establish such services within a branch of the MNR, LUPE has resources budgeted to contract them via host-country mechanisms. It is anticipated that several months of such services will be required annually from UDA(MNR-RTP), MIPH/Zamorano, CTTA, World Wildlife Fund, and other entities, possibly including INTSORMIL, Aquaculture, CRSP, Honduran Ecological Association, etc. It is expected that about $0.6 million of the available budget will support environmental management activities through World Wildlife Fund or a similar conservation oriented NGO, while the remaining $3.3 million will be utilized at the rate of about $0.4 million per year. The larger portion of this will probably be utilized to obtain appropriate technology support from UDA, integrated pest management training from MIPH, and communications assistance from CTTA, at the rate of from 12 to 24 person/months of services per year from each of these organizations.

- An administrative assistant for technical assistance	137,000
- LUPE extension cadre serving 80 communities (See Table 3)	21,888,000
- PVO extensionists serving 10 communities	2,356,000

As discussed in the text, there are several NGOs with the capacity to carry out extension activities similar to those planned for LUPE. In some cases, these organization may already be working in an area within LUPE's geographic scope. In such cases, it would be highly cost-effective to utilize the extension mechanism already integrated into the community to achieve LUPE objectives in that limited area. This component allows the flexibility to do that via host country contracts for PVO services.

b. Training (as opposed to extension activities directly with farmers) will include training of extensionists, paratechnicians, contact farmers, and specialized hillside farming systems technicians as well as training in the particular specialized technologies to be promoted. Lastly, some more specialized longer term training for technical specialists and extension supervisory personnel will be provided. Continuing refresher and up-grading training courses will be administered to the extensionists to insure they are

applying appropriate and validated technologies in their contacts with farmers. The detailed training plan for LUPE is discussed in Section III F 4. The training plan is keyed to human resource needs for reaching LUPE's objectives. 'LUPE is an 8-year project with increasing needs for trained personnel in a variety of areas. Some turnover is expected. Long-Term training will be scheduled early in LOP, so that returning participants can begin taking over key positions in the first half of Project life. All long-term training resources are directly related to positions identified in the personnel plan (Table 3) for administrative and technical services. Experience under RTP and NRMP pointed out the critical importance of training in carrying out technology transfer activities. A summary of the training input elements costing $2,110,000 is as follows:

- 216 person months in long-term US training in sustained productivity agriculture.

- 236 person months in long-term training in Honduras in sustained productivity agriculture.

- 60 person months in long-term training in US in post-harvest storage, processing/marketing.

- 188 person months in short-term (US and regional) training in small farm production systems and post-harvest storage, processing and marketing.

- 1,300 person months of in-country training of extensionists (in areas such as basic grains production, soil conservation, women in development, agroforestry, pesticide management, silvipastoral management, horticulture, credit facilitation, and extension methodology).

c. Vehicle requirements for LUPE technologies extension will include the current NRMP fleet of approximately 40 serviceable vehicles and 24 motorcycles, plus the following (see Procurement Plan Section III.F 3):

- 4-wheel drive:	79 vehicles (including replacement parts and tires, initial purchase plus periodic replacements). *	$1,422,000
- Pickup trucks (4x4):	16 trucks	$ 288,000
- 3-ton trucks:	3 trucks	$ 150,000
- 12 passenger mini-buses:	3 mini-buses	$ 75,000
- Motorcycles:	102 units	$ 255,000

These figures are adjusted for inflation in Project Budget tables.

d. Other inputs requirements for LUPE implementation are these:

- Vehicle fuel, repairs, servicing and tools	$3,610,300 *
- Agricultural and conservation tools and commodities	$2,943,000
- Office equipment and supplies	$ 243,600 *
- Office rents and utilities	$1,584,000
- Credit and grant funding	$1,807,000
- LUPE planning, monitoring and evaluation system	$1,981,000

* See next section for requirements for administration and coordination.

D. ADMINISTRATION AND COORDINATION

1. Organizational Framework

The organizational structure for LUPE is modeled after that of the NRMP which has proven successful.

As mentioned earlier the Ministry of Natural Resources (MNR) will be the lead implementing agency for the LUPE project. The Project will be housed within the MNR as a special activity and will enjoy the same rank and status as a General Directorate of the MNR however it will be administratively independent from the MNR. The Executive Director will be directly responsible to the Minister. It is proposed that within the MNR, a single office, such as the General Directorate for Sectoral Planning (DPS), be designated as the counterpart office to the LUPE Project. This office would funnel requests for information, coordination, etc., from all other branches of the MNR to the Project's Planning, Monitoring and Evaluation Unit (PMEU), and vice versa.

LUPE will consist of a Central Office (Tegucigalpa) where a core staff will be built upon existing NRMP staff. This office will contain the project executive director; two subdirectors (one for extension operations; one for technical assistance); administrative staff; a special unit for project planning, monitoring and evaluation(PMEU); and a core group of national and expatriate technical specialists (under the technical subdirector). The Central Office staff will directly support operations of existing and future (see project map) regional offices along with the respective extension agencies and personnel. LUPE will also support a cadre of selected national technical specialists at regional levels.

There will also be a Project Implementation Committee (PIC) in LUPE, which will have the following regular members:

- LUPE Project Director (Head of Committee)
- Chief of Party LUPE TA Team
- AID Project Coordinator
- AID Project Liaison Officer
- Two Project Sub-Directors
- Project Administrator

This committee will meet once every month (weekly during project star-up). The principal functions of the committee are:

- Ensure timely project start-up
- Request, support and review the external evaluations of the Project.
- Define project policies according to specific needs.
- Recommend short-term TA needs for the project.
- Review annual evaluations, budgets and operating plans.
- Seek adequate interinstitutional cooperation.
- Ensure appropriate implementation coordination with PVOs working in LUPE.
- Seek cooperation with MNR Regional Offices in which LUPE works.

In addition, representatives from MNR, PVOs or other GOH institutions may be invited to a committee meeting when necessary to discuss certain situations' pertaining to their specific area of work.

As LUPE expands geographically, it will absorb, retain and/or build staff in existing MNR extension agencies in selected targeted areas. In targeted areas where no MNR agencies exist, LUPE will establish new agencies, either directly or through the contracting of NGOs.

Extension agencies will be composed of multidisciplinary teams of extensionists whose members will be selected based on the principal needs/vocation of local farm communities. Technical areas to be supported include, among others: agronomy, horticulture, pasture and range management, agroforestry, women in development, on-farm water management and storage, processing and marketing of on-farm produce. Through project orientation programs, these extensionists will all be prepared to work as generalists in sustained hillside agriculture, as well. These teams will represent the principal outreach mechanism of LUPE. Table No. 3, Projected LOP Personnel needs for LUPE, demonstrates how personnel will be placed into the project as LUPE expands geographically.

2. LUPE Administrative Management

a. Planning, Monitoring and Evaluation

As described in Section III B.2.e., a Project Planning, Monitoring and Evaluation Unit will be established in the Central Office to coordinate all project information and to synthesize project planning and programming. LUPE will build on and incorporate NRMP's decentralized planning and evaluation approach as described in the NRMP manual, Procedures for Managing Natural Resources Projects, which features extension agency personnel in the primary planning role with technical orientation provided by the team of central and regional office specialists. The critical steps in the process are briefly detailed below:

- General baseline information concerning physical resource conditions (current land use, slope, climate, etc.) and existing information concerning socioeconomic factors, farming systems, experiences of current and past development projects and previously-tested and applied technologies is collected and synthesized.

TABLE 3. PROJECTED GOH LOP PERSONNEL NEEDS FOR LUPE, BY YEAR, EXPRESSED IN PERSON/YEAR

	YEAR							
	1	2	3	4	5	6	7	8
DIRECTOR	1	1	1	1	1	1	1	1
Administrative Officer	1	1	1	1	1	1	1	1
Clerical, Admin. Asst.	6	7	8	8	8	8	8	8
Secreterial	12	14	15	16	18	18	18	18
Mechanicanics/Motor Pool/Maintenance	8	12	12	12	12	12	12	12
Support Staff	24	30	32	34	36	38	38	38
Sub-Director/Extension	1	1	1	1	1	1	1	1
Regional Supervisors	3	3	3	3	3	3	3	3
Area Coordinators	5	7	9	10	10	10	10	10
Extensionists/Technical	96	120	120	130	150	160	160	160
Paratechnicians	32	40	80	110	130	160	160	160
Contact Farmers	32	40	50	60	70	80	80	80
Sub-Director/Technical Assistance	1	1	1	1	1	1	1	1
Specialists:								
Agronomy/Hillside Agriculture	2	3	4	4	4	4	4	4
Horticulture/Vegetables	1	1	1	1	2	2	2	2
Fruit Production	1	1	1	1	2	2	2	2
Home Economics	1	2	2	3	3	3	3	3
Range Mgmt/Agroforestry	2	2	2	3	3	4	4	4
Animal Health	1	2	2	2	2	2	2	2
Forest Mgmt/Agro-forestry	1	2	3	3	3	3	3	3
Small Enterprises/Agri-Bus.	1	1	1	1	2	2	2	2
Extension Methods/Training	1	2	2	2	3	3	3	3
Agricultural Marketing	1	2	2	2	3	3	3	3
Small Animal Production(Rabbits, Poultry,Fish)	1	2	2	2	2	2	3	3
Water Management/On-farm	1	3	3	3	3	3	3	3
Post Harvest	1	2	3	3	3	3	3	3
Agricultural Credit	1	2	3	3	3	3	3	3
Environmental Science/Monitoring	1	1	1	1	1	1	1	1
Environmental Education	1	1	1	1	1	1	1	1
Pesticide Management	1	1	1	1	1	1	1	1
*Chief/Planning, Monitoring, Evaluation Ag.Econ)	1	1	1	1	1	1	1	1
Planning Specialist/Agronomy	1	1	1	1	1	1	1	1
Planning Specialist/Forestry	1	1	1	1	1	1	1	1
Planning Specialist/Livestock	1	1	1	1	1	1	1	1
Planning Specialist/Administration	1	1	1	1	1	1	1	1
Secretary	1	1	1	1	1	1	1	1
Sub-Region Technicians	1	2	3	3	3	3	3	3
Information Specialists	-	4	5	6	7	8	8	8
Total Staff	248	320	383	439	500	553	553	553

*The Personnel Costs for the Planning, Monitoring, and Evaluation, Unit (PMEU) are not included in the budget line item for extension services, but are covered separately in the line for the PMEU.

NOTE: Contact farmers are unpaid. Hence actual payroll numbers should be reduced by that number (553 - 80 = 473 paid employees for years 6 - 8).

- An overall project plan and strategy is prepared at the central level.

- Extension agency personnel, with assistance from specialist staff perform a "characterization" of their agency's outreach area and target potential communities and groups for participation in project activities.

- Agency level work plans are prepared by the teams of each extension agency with technical assistance from specialist staff.

- Additional specialized training is provided to agency personnel by specialist staff based on technologies to be promoted in their particular outreach areas and technical support materials (manuals, extension materials, supplies) are developed and made available to them.

- Activities of promotion, demonstration, training, follow-up assistance, etc. are implemented at the community level.

LUPE will also employ and improve the project monitoring and evaluation scheme developed under NRMP which provides for continuous quality control and monitors project progress toward meeting planned objectives and goals. Project technical advisors will assist the Project to more fully assess the NRMP system and to identify further how this system can be strengthened or modified to ensure the collection and analysis of data necessary for adequately monitoring and evaluating implementation.

A new emphasis will be carried out under LUPE to assess the impact of project promoted technologies on the productivity of participants' farms and nutritional status of farm families. While NRMP attempted to gauge that project's impact, it did not have appropriate base comparisons (i.e., control before, during and after). LUPE will implement an effective farm-level impact monitoring methodology, to quantitatively gauge the level of services and effectiveness of project promoted technologies in enhancing the productivity of lands used by participating farmers. To fully establish and implement the project information system, LUPE will be assisted by short-term expatriate technical assistance in information management and local information specialists at the central and regional levels. This system, as well as the organization and functions of the PMEU, are described in detail in Annex J of the Project Paper.

b. Other Administrative Systems

LUPE financial, personnel and logistics management will be based on systems which have proven effective in NRMP. Some modifications of these systems will be appropriate to ensure they will serve the expanding implementation scope and area being designed for LUPE. Extension outreach will take place in dispersed hillside communities, many of which have difficult access and varying needs and activities. It will be critical for extensionists to be selected, contracted, assigned, transported, and supplied carefully and expeditiously if they are to be effective in their outreach activities. Financing must flow smoothly, within adequate controls, so that activities are not held back. Administrative management systems and manuals will be installed for LUPE which can insure efficient and expeditious support for its field operations. Prior to commencement of LUPE implementation, appropriate

systems will be developed by USAID with the MNR and NRMP, utilizing indigenous management consulting services. It is expected that the activities and systems to be developed for LUPE during Project start-up will include the following:

- Financial management systems will be established which include budgeting, allotting, certifying disbursements, control of funds, decentralized disbursements utilizing rotating funds or other mechanisms, administrative agreements for credit fiduciary systems, accounting and reporting, internal audits, and designation of authorized responsible officers.

- Systems will be put in place for procurement of goods and services, including planning, requests for procurement, specifications, advertising for bids/offers, evaluation and selection of contractors, product inspection and acceptance, warehousing or stockage, issuance, and designation of authorized procurement and contracting officers.

- Transportation procedures will be established including inventories, assignments and controls of vehicles, servicing and maintenance procedures, facilities and responsibilities; driver training and qualifying arrangements, use reporting, accident reporting, etc.

- Lastly, this start-up period will be used to establish administrative systems for the management of human resources which shall include procedures for recruitment, selection, evaluation, staff training, promotion, sanctions and termination of services. An organizational manual will be prepared and put in place which will include job descriptions clearly stating duties, responsibilites and minimum requirements for each position and statements of responsibility for each organizational unit. A personnel manual containing all procedures related to the management of human resources, including a personnel processing and operations management system will be designed and incorporated by the Project.

Sections F1, 2, and 3 of the Section on Implementation provide schedules for project start-up activities, implementation and procurement planning.

3. USAID Oversight and Management

a. The Mission will assign a USDH Project Officer to manage this Project. The LUPE Project will finance a Project Coordinator, experienced in extension of technologies for enhancing productivity of hillside farmers soil and water conservation, and natural resources protection. The Project Coordinator will be responsible for monitoring the operations of LUPE within the context of the Project Agreement, and will under the direction of the USDH Project Officer handle draft USAID correspondence and documentation of procurement, reporting, logistics and general administration functions. The Project will also finance a Liaison Officer who will assist the Project Coordinator and will divide his/her time between A.I.D. and the Project Central Office. The Project Coordinator will be required for the first four years of the project, and the Project Liaison Officer for the full eight years. A local hire secretary will be funded to assist the Project Coordinator and Liaison Officer.

b. A total of 165 person months of long and short term technical assistance (TA) will be provided through appropriate contracting mechanisms. Two long term advisors and some fifteen short term specialists will provide this TA, necessitating provision of a locally hired administrative assistant on the TA team for six years. The extension operations advisor will be contracted for the first six years of the Project; the hillside technologies advisor will stay for the first four years. Budgets for the TA advisors and the Administrative Assistance are shown in Section III C.3.a. above.

4. Administration and Support Inputs

The greater portion of LUPE inputs relate to Technologies Extension. They have been summarized in section III C 3 d above. Other inputs which are for USAID Management (also included in III D and Annex O) consist of:

- Project management and liaison	$1,049,000
- Audits and external evaluations	$ 558,000
- Vehicle, parts and 1 replacement	$ 41,700
- Vehicle operation and maintenance	$ 48,700
- Office equipment and supplies	$ 29,400
- Secretarial/administrative services	$ 241,000
Total Administration/Support	$1,967,800

E. SUMMARY COST ESTIMATES AND FINANCIAL PLAN

1. Total Costs and Funding Sources

The total cost of this eight year project is estimated to be $50 million. A.I.D. grant financing is planned for $36 million of the total amount. The GOH will finance an estimated $14 million in staff salaries and operation costs through the annual budgetary allotments to MNR, as well as in-kind contributions in support of the project's activities.

2. Financial Plan by Project Input

The Financial Plan by Project Input is shown at Table 4. Table 5 shows the breakdown by Project Component. An inflation factor of approximately 4% per year (compounded) is included for costs other than those for MNR inputs. However no contingency inputs have been provided. Table 6 presents summary GOH and A.I.D. costs by year. Table 7 depicts planned obligations and expenditures by FY.

More detailed budget totals are found in Annex O.

TABLE 4: FINANCIAL PLAN BY PROJECT INPUT
($000), PROJECT 522-0292

	LOP COSTS				
	USAID		TOTAL		
	FX	LC	USAID	GOH	TOTAL
Inputs					
LUPE Extension Service Personnel and Per Diem Costs	-	10,944	10,944	10,944	21,888
Extension Services by NGOs	500	1,856	2,356		2,356
Expatriate Technical Assistance	2,970		2,970		2,970
Local Technical Resources/Services	2,045	2,000	4,045		4,045
Project Management	1,112	178	1,290		1,290
Training Plan	1,267	843	2,110		2,110
Commodities	2,471	590	3,061	165	3,226
Vehicles (and parts)	2,536		2,536		2,536
Vehicle Operation and Maintenance	102	2,796	2,898	751	3,649
Rents		584	584	1,000	1,584
Grants and Credit Inputs		1,307	1,307	500	1,807
Project Operational Monitoring and Evaluation		1,341	1,341	640	1,981
External Evaluations and Audits	500	58	558		558
TOTALS	13,503	22,497	36,000	14,000	50,000

TABLE No. 5: BUDGET SUMMARY BY COMPONENT

[illegible] PROJECT

PROJECT NUMBER 522-0292

TABLE SUMMARY COSTS ($,000)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	
I. Technical Assistance									
a) Expatriates									
Hillside Ag. Ext. Advisor	187	195	202	211	219	228			1,242
Hillside Ag. Technologies Advisor	187	195	202	211					795
Short Term Consultants	47	65	135	140	146	235	79	86	932
Subtotal Tech.Assist.(Exp.)	421	455	539	562	365	463	79	86	2,970
b) Other Advisory Services									
RTP, PVO, CTTA,MIPH, etc		208	322	460	607	740	735	836	3,908
Admin.Assistant for TA.	21	22	22	23	24	25			137
Subtotal Other Tech.Assist.	21	230	344	483	631	765	735	836	4,045
c) Extension Services									
PVO Extensionists		43	135	234	341	506	526	571	2,356
Extension Personnel	1,405	1,841	2,075	2,273	2,922	3,114	3,114	3,114	19,858
Extension Travel / Per Diem	50	180	300	300	300	300	300	300	2,030
Subtotal Extension Services	1,455	2,021	2,375	2,573	3,222	3,414	3,414	3,414	21,888
d) Project Management									
Project Manager	156	162	169	175					662
Assistant for Liaison	42	43	45	47	49	51	53	57	387
Secretary / Adminis. Assistant	26	27	28	29	30	32	33	36	241
Subtotal Project Management	224	232	242	251	79	83	86	93	1,290
II Training									
NRMP Participants	79								79
MS Participants		217	227	118					562
Long Term in Honduras:									
NRMP Participants	50	88							138
Other			26	29	28	13			96
Short Term in USA	7	84	190	99	112	54	47	40	633
Short Term Regional	3	16	17	18	18	19	20	21	132
Short Term in Honduras:									
Using external trainers			56	29	30				115
Using local trainers	14	54	98	58	30	32	33	36	355
Subtotal Training	153	460	614	352	218	118	100	97	2,110

LAND USE AND PRODUCTIVITY ENHANCEMENT (LUPE) PROJECT

PROJECT NUMBER 522-0292

TABLE SUMMARY COSTS ($,000)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	
I Procurement									
Vehicles									
4 Wheel Drive	94	350	405		526	273			1,6[illegible]
Pick up trucks		117			98	137			3[illegible]
Three ton trucks		81		88					1[illegible]
Motorcycles		97	112		87				2[illegible]
12 Passenger bus		81							81
Field equipment	208		281		61				5[illegible]
Office furniture and equipment	104		56						16[illegible]
Vehicle tools (Maint. shop)	10								10
Computer Systems		17		23					4[illegible]
Office supplies	16	22	22			13			7[illegible]
Planting materials (Agroforestry, range fruit trees, etc.)	21	32	56	94	97	101	105	114	620
Agriculture production materials (inputs)	21	43	67	94	122	152	184	229	91[illegible]
Post-Harvest commodities (Lamina/Silos, etc.)	5	22	56	94	122	127	132	143	701
Animal health supplies	5	11	17	23	24	25	26	29	160
Subtotal Procurement	484	874	1,074	415	1,126	828	447	514	5,762
Vehicle operation and maintenance	220	430	448	467	485	505	524	570	3,649
Lupe monitoring	259	168	196	271	240	253	287	307	1,99[illegible]
External evaluation and Audits		11	112	12		266		157	558
Rents	139	155	175	195	215	235	235	235	1,584
Subtotal Other Procurement	618	764	931	945	940	1,259	1,046	1,269	7,77[illegible]
Grants and Credit Fund	104	108	225	351	365	380	132	142	1,807
Totals	3,480	5,187	6,479	6,166	7,287	7,815	6,564	7,022	50,000

TABLE 6: LUPE PROJECT 522-0292: SUMMARY COSTS BY YEAR, GOH AND AID ($000)

Category	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Year 8		LOP		TOTAL
	GOH	AID	GOH	AID	GOH	AID	GOH	AID	GOH	AID	GOH	AID	GOH	AID	GOH	AID	GOH	AID	
I. Technical Assist.																			
Expatriates	-	421	-	455	-	539	-	562	-	365	-	463	-	79	-	86	-	2970	2970
Other Advisory Services	-	21	-	230	-	344	-	483	-	631	-	765	-	-735	-	836	-	4045	4045
LUPE Extns.	727	728	1010	1011	1188	1187	1287	1286	1611	1611	1707	1707	1707	1707	1707	1707	10944	10944	21888
PVO Extns.	-	-	-	43	-	135	-	234	-	341	-	506	-	526	-	571	-	2356	2356
Project Mgmt.	-	224	-	232	-	242	-	251	-	79	-	83	-	86	-	93	-	1290	1290
II. Training	-	153	-	459	-	614	-	351	-	218	-	118	-	100	-	97	-	2110	2110
III. Procurement																			
Commodities	20	464	25	848	20	1052	20	396	20	1107	20	808	20	427	20	495	165	5597	5762
Services	-	479	200	409	200	556	200	550	200	525	200	824	200	611	191	843	1391	4797	6188
Rents	66	73	82	73	102	73	122	73	142	73	162	73	162	73	162	73	1000	584	1584
IV. Grants & Credit	-	104	-	108	-	225	100	251	100	265	100	280	100	32	100	42	500	1307	1807
Annual Costs AID		2667		3868		4967		4437		5215		5627		4376		4843			36000
Annual Costs GOH		813		1317		1510		1729		2073		2189		2189		2180			14000
Total Annual Costs		3480		5185		6477		6166		7288		7816		6565		7023			50000

TABLE 7: PLANNED OBLIGATIONS AND EXPENDITURES BY FY

	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96
Initial Balance	-	1.33	2.33	2.33	3.86	3.61	3.10	3.72
Obligations	4.0	4.9	5.0	6.0	5.0	5.0	5.0	1.1
Expenditures	2.67	3.9	5.0	4.47	5.25	5.51	4.38	4.82
Ending Balance	1.33	2.33	2.33	3.86	3.61	3.10	3.72	0

3. Methods of Financing and Disbursement

Disbursements will be authorized on the basis of documentation submitted for Mission approval. In order to facilitate payments for operating and other expenses, a local currency revolving fund will be established from GOH-ESF funds that will be handled by the project executive unit. Periodic reimbursements will be made to assure the availability of funds during the life of the project.

Standard USAID procedures will be followed for direct payments and direct reimbursements. USAID will handle off-shore procurement and arrangements for overseas training. Methods of financing are outlined as follows:

TABLE No. 8: METHODS OF IMPLEMENTATION AND FINANCING

METHOD OF IMPLEMENTATION	METHOD OF FINANCING	APPROXIMATE AMOUNT
TECHNICAL ASSISTANCE		
Direct PSC/PASA	Direct Payment	$1,290,000
Direct Tech. Services Cont.	Direct Payment	$2,970,000
Host Country Contracts	Direct Payment/ Direct Reimbursement	$6,401,000
TRAINING		
Direct Contract	Direct Payment	$1,267,000
Direct Contract	Direct Reimbursement	$843,000
COMMODITIES		
Direct Contract	Direct Payment	$5,007,000
Purchase Orders	Direct Payment	$590,000
EVALUATION AND AUDITS		
Direct Contract	Direct Payment	$500,000
Host Country Contracts	Direct Reimbursement	$58,000
CREDIT AND GRANT FUNDS		
Host Country	Direct Payment	$1,307,000
LOCAL SUPPORT COSTS		
Host Country Administration	Reimbursement	$15,767,000
TOTAL		$36,000,000

The USAID/Honduras Controller has reviewed the detailed assessment of methods of implementation and financing for the activities of LUPE as summarized above. In addition the Controller has reviewed the financial systems in place under the NRMP project and finds that they are adequate to initiate LUPE project activities. Once the new financial systems are developed by management consulting services for financial management and procurement in LUPE (see Section III.D.2) the Controller will again evaluate them to insure that they are adequate for financial operations, records and controls. The Controller will assure that officials responsible to oversee and administer LUPE implementation are aware of the importance of recording the approval of contractor invoices for services, and for maintaining invoices and other administrative documentation in file for USAID review as needed before and after PACD.

AUDITS

The GOH Controller General is responsible for auditing the A.I.D. Projects. However, because of inadequate human and other resources the Controller General is unable to perform audits on a timely basis. To assure audits are made of the Project, the amount of $58,000has been budgeted for the auditing costs during the life of the Project. It is expected that A.I.D. will contract directly for these services with local Honduran firms. In addition, the A.I.D. Inspector General will schedule periodic audits to determine compliance and the efficiency and effectiveness of the use of Project funds. Also the Office of the Controller will make financial reviews to assure accounting and internal controls are established that should ensure Projects assets are safeguarded.

Controller, USAID/Honduras

1/24/89
Date

F. IMPLEMENTATION

1. First Year Schedule

Table IV.F.1. indicates a series of critical actions necessary to get LUPE implementation underway during the initial year of operations. Many of these actions are related to Conditions Precedent and Covenants, covered in detail in Section V. Others relate to procurement of technical services, training, and commodities. Additionally, a great deal of the ground work, in terms of preparation of specifications, has always been completed (Sections 3 and 4, below, and Annex VII.M).

2. Following Years

Expansion of project field activities beyond currently existing NRMP operations does not take place until year 2. Draft schedules for subsequent year implementation schedules are included in Annex L. Major procurement actions for commodities are noc repeated until year 3.

Expansion of field activities will take place in accordance with plans developed during year one of implementation. Procurement actions for subsequent years (technical services, training, commodities) are covered in the Procurement Plan.

3. Procurement Plan

Since the LUPE Project is in essence a people-to-people oriented extension effort, there will be great contracting load for personnel services, most of which will be obtained by the GOH through their own contracting mechanisms (this will include contracting NGOs to provide extension coverage, as well as other short-term services). The MNR has considerable recent experience with host country contracting under the NRMP and other projects, for technical and personnel services, non-personal services, etc., from such institutions as MIPH, SANAA, EAP, AHE, private companies, and individuals. However, there are also substantial procurement requirements for technical services, training, vehicles, and other commodities. As shown in Table 10 these procurement needs can be conveniently divided into categories with respect to the institution responsible for procurement.

The project design committee has reviewed the various procurement actions to be carried out under the project and finds that with the possible exception of some vehicles that procurement under this project will be done in full and open competition. It is anticipated that the procurement of expatriate technical services will be open to commercial enterprises as well as institutions of higher education and other entities. The project committee examined at the PID stage the desirability of carrying out this activity under the authority of Title XII of the FAA. As this project is designed to maximize collaboration between various Honduran public and private entities, it was decided that the exclusive use of the Title XII procedure was not appropriate and that competition would not be limited. In order to ensure the equitable participation of small and disadvantaged businesses in this project all procurements advertised in the Commerce Business Daily (CBD) will mention that A.I.D. encourages the participation of small and minority businesses, as well as university and consortia, including Title XII institutions, in this project. Potential bidders for the expatriate technical services contract will be requested to provide a subcontracting plan as part of their proposals. This plan will either identify qualified small or minority subcontractors or will describe how potentially qualified firms would be identified. This RFP will also encourage potential offerers to establish relationships with Title XII institutions for applicable technical services.

lbilities, First Year, LUPE

MONTH AFTER AUTHORIZATION									RESPONSIBILITY
4	5	6	7	8	9	10	11	12	
									GOH, AID
									GOH, AID
									USAID
									USAID
									GOH
—									GOH, AID
									GOH
									AID
									AID
—	—								GOH
—									GOH
—									GOH
—	—								AID, GOH
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	—	—	—						GOH
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	—	—							GOH
	—	—							GOH
		—	—						GOH
		—	—						AID
				—	—				AID
					—	—			GOH
							—	—	GOH
								—	GOH

Due to the complexity of the procurement of expatriate technical services, U.S. training, and certain categories of commodities, and the lack of experience on the part of the counterpart agency in international procurement, USAID/Honduras will directly procure these resources. Other technical services such as for NGOs, GOH extension and other local advisory services will be the responsibility of the GOH. Draft scopes of work for external technical services and project management needs (AID), and detailed specifications for vehicles and other off-shore commodity requirements are being developed concurrently with the Project Agreement. These materials will facilitate the rapid preparation of PIO/Ts and PIO/Cs upon project authorization, and the completion of initial conditions precedent.

In order to further simplify the procurement process in A.I.D., it is anticipated that vehicles will be procured in several large lots, and that procurement of most other commodities will be carried out only twice, being initiated in the first and third years of project life, as indicated in the charts in Annex VII.M. This requires that the LUPE central office maintain a secure storage facility and an effective control mechanism for accountability of commodities, which will be included in the LUPE administrative and management plan.

Regarding USAID procurement responsibilities for technical training, these can be handled by Project Management staff supported by HRD/P staff. Essentially this will involve preparation of an initial set of PIO/Ps to continue support to several NRMP participants still in training, a further series of eleven PIO/Ps for long-term training beginning in years 2 or 3 of LOP, and occasional PIO/Ps for short-term training opportunities, as they arise.

Technical services (expatriate) procurement requires issuance of a PIO/T and RFP immediately after project authorization. It is anticipated that all external TA requirements -- both long and short-term, will be included in one package as an institutional contract.

Project Management needs will be recruited and contracted, via PASA or PSC, by the Mission as required.

As indicated in the table, considerable local commodity and local training procurement will be the responsibility of the GOH. Since most of this involves A.I.D. DA grant funding, Agency Host Country Contracting and Procurement regulations and requirements will be followed.

TABLE 9: Procurement Categories and Magnitudes, and Delineation of Procurement Responsibility (522-0292).

	Responsible for Procurement	Magnitude and Source GOH	USAID	TOTAL	APPROVAL
	($000)				
Technical Assistance					
Expatriate	USAID	-	2,970	2,970	GOH
Other Advisory Services	GOH	-	3,219	3,219	AID
NGOs/Extension	GOH	-	1,840	1,840	AID
Project Management	USAID	-	1,120	1,120	-
GOH Extension	GOH	10,944	10,944	21,888	AID
Training					
NRMP Continuation	USAID	-	205	205	-
Long-Term/U.S.	USAID	-	494	494	GOH
Long-Term/Local	USAID	-	81	81	GOH
Short-Term/external	USAID	-	646	646	GOH
Short-Term/local	GOH	-	400	400	-
Vehicles (and parts)	USAID	-	2,190	2,190	GOH
External Evaluations	USAID	-	440	440	-
Commodities					
Category I (Primarily U.S.)					
Field Equipment	USAID	-	500	500	GOH
Office Furn. and Equipment	USAID	-	150	150	GOH
Office Supplies	USAID	-	65	65	-
Maintenance Tools, Equipment	USAID	-	10	10	-
Computer Systems	USAID	-	35	35	-
Category 2 (Primarily local)					
Office Supplies	GOH	65		65	AID
Planting Materials	GOH	-	500	500	AID
Agricultural Inputs	GOH	100	620	720	AID
Post-Harvest Inputs	GOH	-	555	555	AID
Animal Health Supplies	GOH	-	130	130	AID

4. Training Plan

Summary

As with any extension based project whose success depends upon effecting fundamental changes in traditional production systems, training is a critical element in LUPE. To enable extensionists to perform as effective change-agents in rural communities, and to prepare project specialists for their roles as technical resource persons and as "trainers of trainers," a substantial investment is required.

Since the training of farmer participants is considered to be an element of technologies extension, it is not included in this formal training plan for LUPE, which concentrates on the training of extensionists, paratechnicians, contact farmers, and specialized support technicians. The plan calls for the expenditure of $2,110,600 which covers the expected costs for long-term training both in the U.S. and in Honduras; and short-term training in the U.S., third countries in the region, and in Honduras.

Training Objectives

The training called for in this plan will increase LUPE staff capabilities to effectively support 50,000 families in increasing the sustainable productivity of the resources available to them. The plan is framework for the timely development of the knowledge and skills needed at all levels of the LUPE staff for project success.

Since this training plan was developed simultaneously with the Project Paper the Project Identification Document served to a large extent as the foundation for translating projective objectives into a functional training plan. The following were key considerations in this process:

1. The LUPE project will be built as a deliberate expansion of the successes of the Natural Resources Management Project (NRMP, the Rural Technologies Program (PTR) and other current projects.

2. NRMP currently has approximately 300 employees and most of them will be included on the LUPE staff which will eventually number between 400 and 500 employees.

3. LUPE will function through approximately 90 field sites with four or five employees per site.

4. LUPE intends to rely more heavily on paratechnicians and field promotors (both male and female) and less on highly trained technicians.

5. Training begun under NRMP should be completed under LUPE so that LUPE will have the benefit of the human resources developed under that project. It follows that those academic trainees will be incorporated into the LUPE project on returning from their studies.

6. LUPE staff will be developed to more fully reflect the preparation of women seeking employment in the sector, and the approximately 50% involvement of women found in the beneficiary group. Women will have equal opportunity for employment and training at all levels.

There are several aspects to the long-term training investment. These include:

a. Approximately 36 months of L-T training in the U.S. to allow several NRMP funded participants to complete degree or certificate programs that will require funding beyond the PACD of NRMP. Three of these participants return early in 1989, but five will need scholarship extensions of from three to nine months; all are scheduled to return to new specialist and coordinator positions in years one and two. (Estimated cost is $79,000).

b. A total of approximately 240 person-months of U.S. training for eight U.S. degree programs in selected areas. These individuals will return to fill specialist and coordinator positions scheduled to open up in years 4 to 6, and include the following specialties: Agronomy/Soils, Agricultural Economics/Farm Management, Agricultural Extension Administration, Small Animal Production, Home Economics Extension, Agricultural Engineering (Appropriate Technology), Agronomy/Crop Diversification, and Range/Pasture Management. (Estimated cost is $562,000).

c. Approximately 152 person-months of L-T training at the Private José Cecilio del Valle University in Tegucigalpa for eight NRMP participants whose degree programs in Agricultural Administration and Agronomy require funding beyond the PACD of May 31, 1989. These NRMP employees will fill specialist positions opening in years 1 to 3. (Estimated cost is $138,000).

d. A total of 84 person-months of L-T training to finance one "Agronomo" degree in rural development at the PanAmerican Agricultural School (EAP) at Zamorano, and one Administración Agrícola degree at the Private University (José Cecilio del Valle). These two individuals will be expected to return to LUPE to fill regional coordinator positions opening in year 4 or 5 of LOP. (Estimated cost is $96,000).

Short-term training includes a total of 188 person-months for formal short courses, on the job training (OJT) and workshops in small farm production systems, post harvest activities, extension methods, etcetera. This training will include opportunities in the U.S. and the region, and will cost an estimated $765,000. In addition, 1,300 person-months of in-country training of extensionists will be funded at a total cost of $470,000. This training will be carried out by project funded T.A. resources, trained LUPE specialists, and/or other in-country sources; and will include educational opportunities for extension agents, specialists, and contract farmers--both male and female.

In addition to providing new project employees with their orientation to project operations and philosophy, in-country and external short-term training will be used to provide a continuing up-grading of extensionists' skills.

The nineteen NRMP participants currently on long-term training will be completing their programs beginning in early 1989. These individuals will be incorporated into LUPE staffing as they return, helping to provide the "critical mass" of well-prepared extension specialists and coordinators that LUPE will require. The eleven new LUPE participants for long-term training will be selected during the first and second years of implementation, so that they can be participate fully during the latter half of LOP. Their selection will be based on a series of criteria established to insure that the most deserving and promising project employees will have the advantage.

Training Coordination

Management and administration of external long-term training, since it involves only nine new participants, can be handled by USAID Project Management and Support staff. Planning for regional and in-country training will be the responsibility of the Chief Technical Assistance Advisor and the Project Director and Sub-Director for Technical Assistance, supported where required by USAID Project Management staff. An immediate implementation task for USAID staff will be preparation of PIO/Ps to continue support for selected NRMP participants in Honduras and the U.S.

5. Project Incentives and Credit Program

The LUPE Project will continue to provide incentives and credit through the program established under the NRMP. The Project Design Committee has discussed and reviewed credit needs for the LUPE Project with GOH counterparts and finds that continuing with the program established under NRMP (but with additional funding of $1,807,000) will cover anticipated credit and grant needs.* The current NRMP credit/incentives program is managed through a fiduciary account with BANADESA (National Agricultural Development Bank). The account has L1,000,000 in the loan subaccount. Upon termination of the NRMP project, the fiduciary program with BANADESA will be modified and expanded. The loan funds in the current account will be added to LUPE credit funds, making available L3,000,000 ($1,500,000) for LUPE credit activities. The balance will be applied to the incentives programs. The transfer of the NRMP loan funds is part of a condition precedent to disbursement (see Section V.C.) and will be an activity carried out during the preimplementation phase of the project. It is expected that loan reflows, including interest, will be used to maintain the value of the accounts. Upon completion of the project the credit line will continue to be lent for similar purpose and under similar conditions for a period of not less than ten years.

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* It should be noted that the LUPE PID discussed a credit program of approximately $8,000,000. At the time of PID development, LUPE envisioned a shrimp production component, which would require substantial credit inputs. Since then, the shrimp component has been taken out of the LUPE project, therefore credit needs have been significantly reduced to the amount discussed above.

The current fiduciary account established in BANADESA is divided into two subaccounts to provide small loans and administer the incentives (subsidies) program. NRMP loans (provided at between 13% and 16% annual interest rate to the borrower) finance soil and water conservation practices, basic grain and diversified crop production and livestock improvement practices. The majority of loans are given for livestock and pasture improvement practices. Over the eight year NRMP life of project, approximately 200 loans have been issued, to former groups of up to 25 members and to individuals, with an average loan size of L3,000. The loan default rate (8%) is substantially lower than with similar agricultural credit lines. The credit process is relatively simple and relies on the field agency extensionsts to assist both farmer and bank. The extension agent assists the farmer in preparing the loan request, which is reviewed by NRMP technical staff and then passed to BANADESA for review and approval. Once approved, the loan is disbursed in tranches, and the extensionist accompanies the farmer to the bank to help him/her through the procedures of receiving the loan. Payments are usually scheduled every six months following a one year grace period. Again, the extensionists follows up with the farmer and accompanies his/her to the bank to make the first payment. The BANADESA fiduciary mechanism, under the NRMP, has been very successful in providing small loans to project beneficiaries. This is due to a combination of good administrative support from BANADESA, and supervision, technical assistance and follow-up on the part on NRMP technicians.

The grant program subaccount has been used to establish community tree nurseries; to initiate soil conservation structures, and to promote and establish family orchards, small animal projects, improved stoners, family and community gardens, and activities of community women's groups. Grants of over L83,000 to over 4,400 rural women have been given for productive activities, under grants program subaccount.

The LUPE project will add an estimated $1,000,000 to the existing loan subaccount in BANDADESA. The project's credit strategy is to provide timely, limited credit through the fiduciary mechanism for promising enterprises (i.e. livestock and pasture improvement, crop diversification, post-harvest activites, irrigation, etc.). Special emphasis will be placed on facilitating loans to women farmers and rural women's groups involved in post-harvest and marketing activities. Except on a special case by case basis credit will not be available for soil and/or water conservation improvements and shor term production loans since there are other sources available for these purposes. The new agreement which will govern the fiduciary account with BANADESA will incorporate processing and marketing activites, and rural enterprises proposed for the LUPE Project. Based on the experience of the NRMP project and on projections made in the design of the LUPE project, it is estimated that over the life of the project up to 800 loans of an average size of L2,500 will be at issued. The term of the loans will be up to five years, provided at the prevailing market interest rates which are based on the Central Bank's rediscount rate. Table 10: Identification of Credit Needs and Strategy, illustrates how credit and incentives requirements for LUPE beneficiaries were calculated.

Experience has shown that the majority of marginal farmers (Category 1) do not qualify for credit and have very limited needs for it. Under the existing

NRMP/BANADESA program, grants in the form of production inputs, food, or cash, are used to initiate soil and water conservation practices for selected participants, establish community nurseries, or wood lots for firewood, reestablish/maintain forests which protect water sources as well as for agroforestry practices. Grants are given directly to a community or an individual beneficiary through the extension agency, and BANADESA's role in this process is one of disbursing and accounting agent. Under LUPE, as indicated in Table 10, 31% of the marginal farmers will receive some type of grant to initiate conservation and intensive production activities. This is because farmers, in the important land preparation time period prior to planting, often must seek off-farm employment to provide basic family needs. To hold the farmer on the land in order to install conservation structures, some alternative must be offered. As a response, LUPE will offer grants to cover the cost of initiating conservation practices on up to one half hectare of land per selected beneficiary. It is expected that under LUPE substantially fewer farmers will receive subsidies than under NRMP. LUPE will limit grants to only key farmers and priority community activities.

In an effort to broaden private banking sector participation in small farmer lending, the project will facilitate access to credit provided under the Irrigation Development Project (522-0268), and Small Business II Project (522-0241), and the Rural Technologies Project (RTP). LUPE participating farmers will be referred to these and other lines of credit when their particular project is too large for financing under the LUPE/BANADESA program, is financially promising and related to the types of activities financed by these credit lines. Finally, the Project will hire an agricultural credit specialist to develop credit alternatives, train extensionists in credit management, and will assist agencies in facilitating credit to potential clients.

Table 11: Identification of Credit Needs and Strategy

	Category 1 Marginal Farmers	Category 2 Small Commercial Farmers	Category 3 Small Entrepreneurial Farmers*	TOTALS
A. Number of Farmers Comprising Category				
- Nationwide	125-150,000	75-100,000	10-25,000	
- Project Participants	37,500	10,500	2,000	50,000
- Percent of Number of farmers	75%	21%	4%	100%
B. Need of grant or in kind assistance as initial incentive	High/Medium	Low	None	
C. Credit/Requirements				
- Need for credit	Very Low	Medium	High	
D. Current Access	None	Very Low	Low	
- LUPE Approach	1. Grants to 31% (11,625) 2. Sm. Loans to 1.6% (600) 3. Encourage "graduation" to Category 2	1. Grants to 12.2% (1,287) 2. Sm. loans to 1.6% (168) 3. Improve access to other credit lines. 4. Encourage "graduation" to Category 3	1. No grants 2. Sm. loans to 1.6% (32) 3. Improve access to existing lines.	
E.				
Number of Loans	600.00	168.00	32.00	800.00
Number of Grants	11,625.00	1,287.00	0	12,912.00
Average loan size	L 2,500.00	L2,500.00	L2,500.00	
Average grant size	L 125.00	L125.00	-	
Total Amount of Loans	L1,500,000.00	L420,000.00	L80,000.00	L2,000,000.00
Total Amount of Grants	L1,453,125.00	L160,875.00		L1,614,000.00

* Category 3 farmers are essentially Small Commercial Farmers with the ability and/or desire to take on risk in pursuit of greater productivity and returns.

IV. PROJECT ANALYSES SUMMARIES

A. INSTITUTIONAL ANALYSIS

A detailed Institutional and Administrative Analysis is provided in Annex E. It verifies institutional feasibility for the LUPE Project, based on administrative arrangements similar to those which are operational for NRMP. LUPE will operate as a semiindependent project initiative within the MNR (see Figure 4). The Executive Director of LUPE will report directly to the Minister of Natural Resources. LUPE will be delegated authority from the Minister for funds management, contracting, personnel management and general implementation functions, utilizing its own administrative systems and unimpeded by the Ministry's bureaucratic processes for other activities. The project administrator will be bonded to manage a petty cash rotating fund within the implementing unit. The excellent experience with NRMP under similar arrangements ensures administrative feasibility for LUPE.

The institutional framework for LUPE contains an extension service working with the hillside farmers, administrative support from dispersed extension agencies (eventually 80), coordination and technical specialized support from three regional offices, and direction, planning, technical and administrative management from the central office. LUPE will build upon existing NRMP staff, contracting new personnel as the Project expands.

The central office will be staffed by an Executive Director, Sub-Directors for Implementation and for Technical Assistance, a special Project Planning, Monitoring and Evaluation Unit (PMEU) and Administration, together with subordinate specialists and expatriate advisors. Regional Coordinators will report to the Sub-Director for Implementation. Extension Agency Supervisors will report to the Regional Coordinators (see Figure 5: LUPE Organizational Scheme). The PMEU will serve as the point of contact between the Project and all other MNR divisions and offices. A Project Implementation Committe (PIC) comprised of representatives of the Project Central Office, USAID, and other GOH institutions, will be established to ensure timely project implementation, and to coordinate the various interinstitutional activities proposed under the Project.

Apart from LUPE, the MNR is charged with responsibility for general promotion of national agricultural production and productivity, development of agroindustry and protection and management of natural resources. Operational Directorates for these responsibilities are Agriculture, Livestock, Mines, Water Resources and Renewable Resources. LUPE operations will be independent of these Directorates except for informal mutual reinforcement arrangements and activities. Legal authority for the Ministry of Natural Resources was promulgated in Decree No. 41 in 1983.

FIGURE No.4: ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF NATURAL RESOURCES

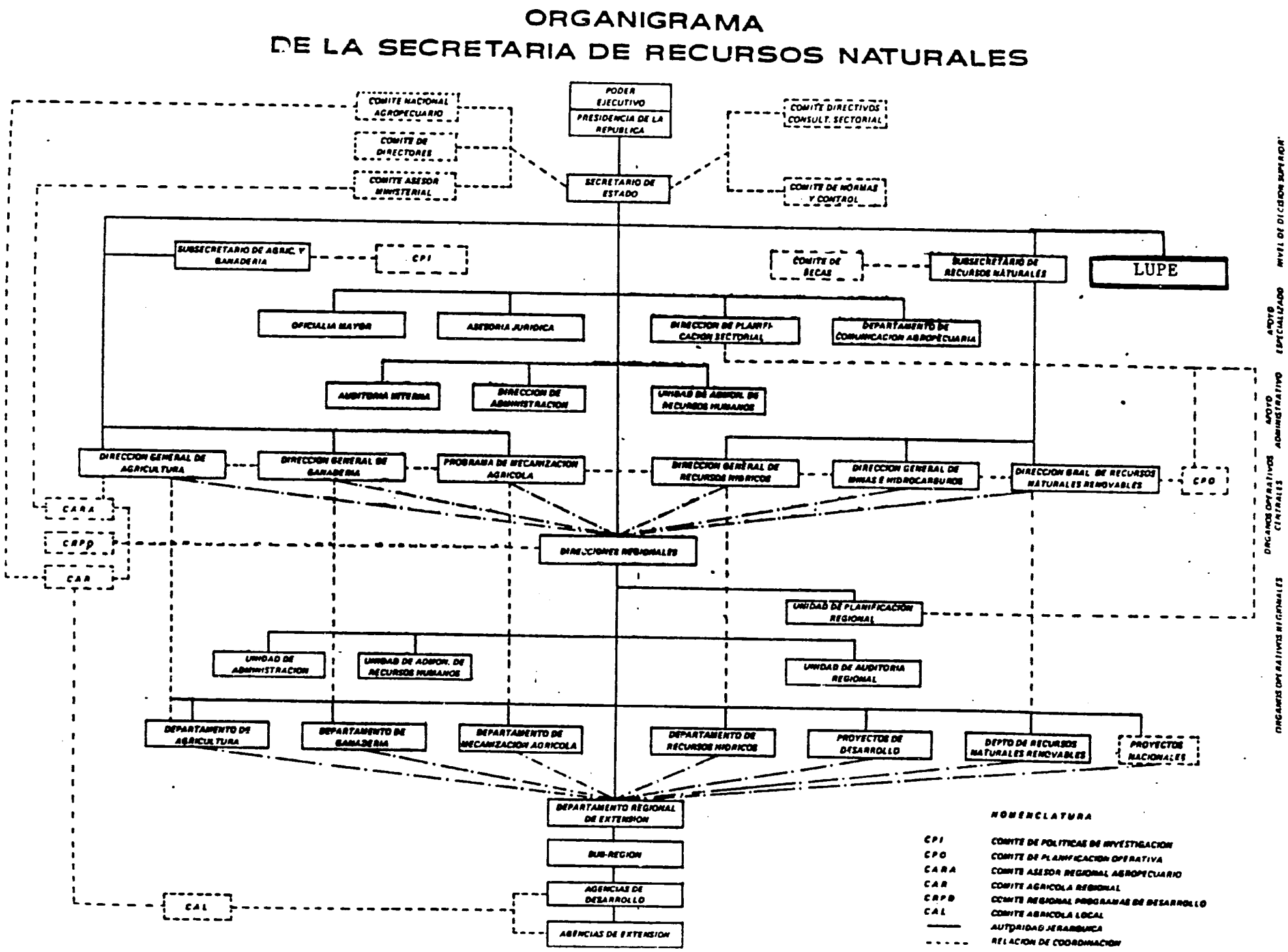
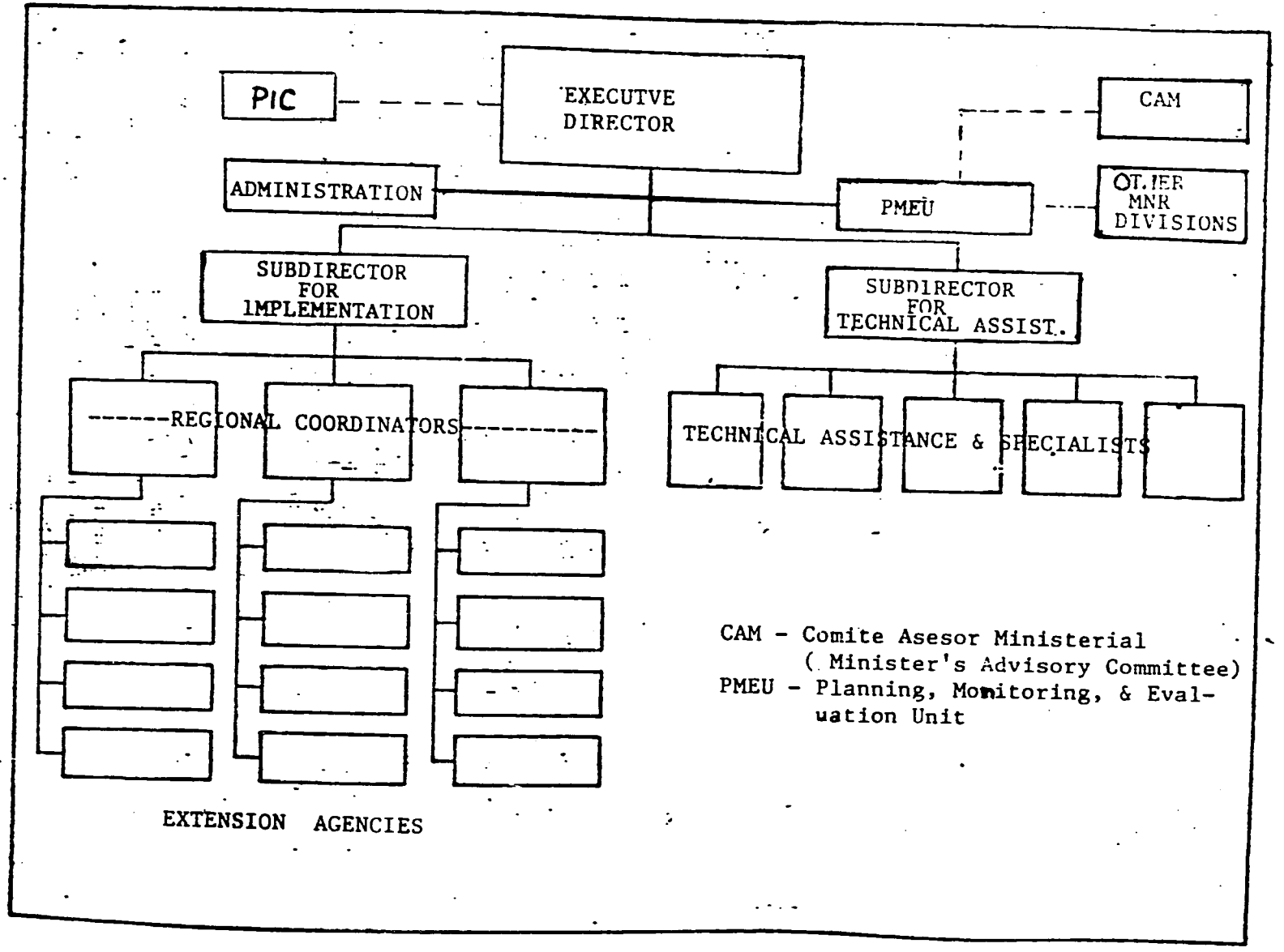


FIGURE No. 5

LUPE ORGANIZATIONAL SCHEME



B. TECHNICAL ANALYSIS SUMMARY

The LUPE Project builds on a sound technical foundation which has been developed over the past eight years through joint A.I.D./GOH implementation of Projects 522-0157 (RTP) and 522-0168 (NRMP). In addition, LUPE design draws upon a broader experience base including (1) other successful GOH projects such as A.I.D. supported initiatives in communications for agriculture, pest management, agriculture, environmental education and forestry; and (2) the expertise of a team of international experts in agricultural extension, watershed management, agroforestry, and related fields (see Annex VII F2, Extension and Training, and Annex VII F1, Integrated Hillside Agriculture and Resource Management). The result of combining extensive past experience with innovative technical input is the development of a project which is technically sound and operationally implementable, with the potential for an unusually rapid start-up.

1. Previous USAID/GOH Experiences

The LUPE project is essentially a production and resource management oriented extension project which combines a farming systems approach emphasizing a series of farm-level interventions, with an outreach mechanism designed to involve the family and community in the development process. Both the USAID and the MNR have extensive successful experience in the execution of this type of extension approach, primarily through the NRMP, which has developed a successful extension model that is now reaching around 14,000 farm families in selected areas.

Although LUPE includes several modifications and additions to the "package" which the NRMP has implemented, it nevertheless will initiate activities by taking over the existing NRMP structure (with several modifications). This consolidation of an ongoing project with a new one will enable LUPE to begin life with an existing administrative/technical structure, and will result in substantial savings in project start-up time and cost. LUPE will have the advantage of the ability to transfer technology on a significant scale from the very outset, utilizing the NRMP framework.

2. Technical Planning for LUPE

While the NRMP, and to a lesser but still important extent the RTP, provide the basic framework and a large body of technical experience for LUPE implementation, the new project nevertheless includes innovations of its own. For example, no project is perfect, and the RTP and NRMP provide their share of "lessons learned" were applied to LUPE design, particularly in the areas of incentives and the expanded use of para-technicians. Annex VII F2, Extension and Training provides a detailed discussion of several areas that represent such adjustments to prior approaches.

In addition, the LUPE Project will endorse the MNR's new "Unified Methodology" for extension (UM). The UM represents a synthesis of eight slightly different extension approaches utilized in various MNR regions and projects, and has a very strong NRMP influence. In fact NRMP approaches are consistent with the UM, and the excellent series of technical manuals developed under the NRMP will form a great part of the technical resource base for all LUPE extensionists, within the UM conceptual framework.

As discussed elsewhere, personnel administration changes will be required as the NRMP is consolidated or subsumed into LUPE. A major component of this is the management of the technical specialists.

For purposes of organizing the project description sections, LUPE has been divided into several components, the technical feasibility of which is covered in the following section.

3. Technical Feasibility of Activity Components

a. Sustained Production Enhancement

Experiences under the NRMP have shown the technical feasibility of increasing small farm production while improving management of the resource base. Keys in this process are developing highly trained and motivated extensionists, educating farm families with respect to natural resources conservation imperatives and alternative production methods, utilizing a systems approach to the farm and the "microwatershed," and obtaining visible and positive results.

Time and again project participants have articulated a surprisingly accurate understanding of the dynamic interrelationships between soil and water conservation and long-term productivity of the land. The technologies for delivering a broad series of conservation-oriented, production-increasing interventions are well developed, and well identified in the literature, based on experiences in Honduras and elsewhere.

LUPE interventions in the area of sustained production enhancement will include the following:

Extensive farmer training
On-farm - demonstrations
Soil conservation structures and practices, including terraces, composting, drainage, live and stone barriers, contour cultivation, minimum tillage, fencing/rotation grazing, living fences, etc.
Improved cultivation practices (seed spacing, type)
Miniirrigation
Agroforestry/fuelwood/forage
Range and livestock improvement
Crop diversification
Fruit orchards
Small animal production

All of the above have shown a high degree of receptivity, and most of these interventions, at the small farm level, require little or no incentive. Visible impacts on production and soil and water retention become the incentive in the long term.

In some cases, small grants (which may consist of food, inputs, plant materials or tools) or loans may be made available to help finance the farmer's initial on-farm improvements (up to one half hectare per farmer). For small commercial farmers with a higher level of credit-worthiness, LUPE personnel will assist the producer in gaining access to existing credit resources for agriculture.

b. Post-Harvest Interventions

A number of projects, especially including the RTP, and a lesser extent the NRMP, have demonstrated the effectiveness of working on post-harvest improvements for the Honduran farm family. With respect to marketing, experiences have been relatively few and usually of very limited long term impact.

(1) Processing and/or Protection

A series of interventions in the area of post-harvest loss prevention, such as grain dryers and small storage silos for basic grains, has demonstrated a high level of technical and economic feasibility. These technologies, well developed under RTP and other projects, will be promoted under LUPE as well, as they can have substantial impacts on reducing post-harvest losses and increasing farm incomes.

Similarly, processing interventions involving food preservation and packaging, and the transformation of basic agricultural produce into artesanal products that can be marketed with a value-added margin, provide meaningful opportunities for farm families. While often not of significant magnitude from a macroeconomic view point, such activities often make relatively important contributions to incomes at the family and community levels.

There are numerous opportunities (both tested and untested) to enhance small scale rural processing and transformation activities that, in conjunction with appropriate market access, can have substantial income effects. These opportunities, many of which have been identified under the RTP, will be examined fully by LUPE technical specialists in processing and marketing, and where warranted, project resources will be utilized to provide for low-risk trials of specific interventions, and in some cases seed capital, either by small grants or enhanced access to credit.

(2) Agricultural Marketing

While marketing <u>per se</u> is not envisioned as a major, discrete component of LUPE, it is unwise to consider the level and variety of productive interventions contemplated without providing the Project with the

technical capacity to treat special marketing issues. Hence the specialist corps will include a marketing specialist, and the short-term TA team will include appropriate resources to support the specialist in this area. In addition, it is anticipated that an early project investment in special technical studies will be an objective study of the role of the marketing middleman (wholesaler/transporter) in the small farmer economy, and ways in which the middleman's effectiveness can be improved and made more efficient, especially by means which could lead to larger margins at the farm gate.

c. Technology Extension and Project Administration

Not only will the LUPE Project have a history of experience and a body of written manuals upon which to base implementation, but it will inherit an intact technology extension mechanism, complete with a successful administrative and coordinating unit. Of course, there will be initial changes and adjustments, as well as a revised personnel management system, but these can be provided quickly, given the NRMP experience and the high degree of collaboration which the MNR has exercised during LUPE development. From a technical viewpoint, the extension delivery system envisioned for LUPE represents a very strong asset for project execution.

C. SOCIAL SOUNDNESS

The Social Soundness analysis in Annex VII G finds that the LUPE Project has potential to yield critically needed benefits to large numbers of the rural hillside population of Honduras, as well as to secondary beneficiaries in the lower elevations of the watersheds. It particularly will benefit the marginal small-scale hillside farming families by enabling them to conserve their farm land for continuous cropping, increasing their production yields, alleviating their current food insufficiencies and increasing their incomes.

Annex VII G evaluates the social soundness and feasibility of LUPE in terms of beneficiary focus, levels, locations, socioeconomic factors, participation, motivation, technologies to be extended, outreach methodology, participation and impacts on women, benefit distribution and equity, impacts on social structures and traditional mores, impacts on employment, impacts on displacement and urbanization and impacts on secondary beneficiaries. The findings as to social soundness are positive in all regards.

Potential obstacles or adverse effects are expected to be minimal and resolvable if they occur. The project includes demonstrations in technologies and cultivation plots which, together with culturally appropriate extension methods will facilitate spread and diffusion of the technologies within and beyond participating communities.

LUPE has the advantage of continuing activities and approaches which have been successfully implemented and modified during the eight years of experience of NRMP. Evaluations and course corrections have addressed

implementation and methodology problem areas, and the achievements and acceptance of NRMP gives additional assurance that LUPE interventions will be socially sound, appropriate and feasible.

Details of the participant beneficiaries have already been discussed in Section II B with further elaboration in Annex VII G.

D. ECONOMIC ANALYSIS SUMMARY

A detailed analysis of the expected net economic impacts of LUPE is included as Annex VII.H to this Project Paper. Annex H contains a series of tables set up for calculating the net benefits of major project interventions on farm family production and net income, based on comparative farm budgets for various basic grains cropping systems, cost budgets for silo and Lorena stove construction activities, estimates of agro-forestry output, and farmer recruitment projections.

Based on those calculations, Table 10 was generated. This table measures the expected flows, in economic (ie. shadow) prices, of (1) total project cost, and (2) increases in farm-level value added attributable to major project interventions. The table indicates the benefit/cost ratio of the project (based on a 12% discount rate), and the economic internal rate of return of the project.

Total project costs are expended over eight years, but benefits continue to accrue beyond the LOP. However, the stream of future benefits is considered only for ten years beyond the PACD, since the discounting process renders benefits which accrue beyond this period of negligible impact. Beyond that period of farmer recruitment during the LOP, it is assumed that there is no net change in the participating farm population (ie. no demonstration effects are postulated). It is further assumed that farm budget relationships remain static over time.

As indicated in the table, the project generates an extremely favorable economic internal rate of return (27%) and benefit/cost ratio (1.90). Moreover it should be emphasized that these estimates are highly conservative, since all project funded costs were included, whereas only the major direct farm-level benefits accruing to the target population were included. Thus the social benefits to Honduras of (a) upstream soil and water conservation actions, (b) project-related demonstration effects, and (c) the salvage value of project commodities did not enter into the economic profitability calculations. Moreover the analysis did not include the net benefits of a variety of processing and marketing interventions which are to be more fully developed and targetted during the course of project implementation. Future empirical analyses carried out in conjunction with project evaluations will have an opportunity to quantify a number of these "invisible" benefits, and it is quite probable that this will raise the final economic rate of return and benefit/cost calculations significantly.

At any rate the current analysis indicates that LUPE offers highly favorable return on investment, which is consistent with findings from other projects that almost universally show a relatively high payback for soil conservation investments in hillside agriculture.

Table 12: Net Benefit Stream Generated By LUPE, Years 1 through 18 After Authorization. ($1,000)

Year	Total Project Costs	Net Farmer Returns Due To Project: Agriculture	Agro-Forestry	Other*	Total Annual Farm Net Returns	Net Project Benefits
1	4047	0	-23	4	-19	-4065
2	5993	833	-23	31	841	-5151
3	7324	2026	187	68	2281	-5049
4	6675	3580	396	116	4092	-2596
5	7669	5522	605	170	6297	-1395
6	7819	7658	814	232	8704	852
7	6459	9990	1046	301	11337	4830
8	6675	12211	1255	369	13835	7097
9	0	14433	1255	434	16122	16043
10	0	14433	1255	434	16122	16043
11	0	14433	1255	423	16111	16032
12	0	14433	1255	409	16097	16018
13	0	14433	1255	391	16079	16000
14	0	14433	1255	366	16054	15975
15	0	14433	1255	341	16029	15950
16	0	14433	1255	312	16000	15921
17	0	14433	1255	284	15972	15893
18	0	14433	1255	255	15943	15864
Total ($)	52661	186149.5	16807	4940	207896.5	154262
NPV	31775	53781	4946	1525	60252	28207

Notes : Discount Rate Utilized is 12%
Economic Internal Rate of Return is 27%
Benefit/Cost Ratio = (60,252/31,775) = 1.90

* "Other" category includes grain silos and Lorena stoves

E. ENVIRONMENTAL SOUNDNESS

The Agency for International Development, through its Latin American and Caribbean Bureau's Chief Environmental Officer made a positive determination for the Initial Environmental Examination of the LUPE Project, requiring that an Environmental Assessment (EA) be carried out. A scoping exercise and further environmental analysis was carried out leading to the preparation of the EA in October, 1988 (Annex I). The EA was approved by the LAC Chief Environmental Officer on December 23, 1988, (See Cable 88 State 412984).

Given that the proposed project has had a strong environmental emphasis throughout its development, and retains as part of its goal and purpose statement the phrase "to improve management and effective protection of the natural resources," it is anticipated that its impacts on the environment will be overwhelmingly positive. Nevertheless, based on the results of the IEE and scoping exercise, five issues were established as criteria for alternative evaluation:

1. Soil and water conservation;
2. Tropical forest depletion;
3. Agricultural sustainability;
4. Socioeconomic development; and
5. Conservation of biological diversity.

During the course of the EA, three alternatives were developed and considered:

Alternative I: The LUPE Project, as described in the PID of February 13, 1988 and draft PP documents on September, 1988.

Alternative II: The LUPE Project, as described above, plus environmental management activities proposed by the EA team in September/October 1988.

Alternative III: "No Action" alternative following termination of Natural Resources Management Project.

The preferred alternative, number II, recognizes the substantial positive impacts that can be expected from LUPE implementation, and adds interventions that can help make these positive impacts greater and avoid any associated negative impacts that might arise from project activities in pesticide use and watershed development. In addition to the massive expenditures planned in such environmentally sound interventions as soil conservation and agroforestry, $1,468,000 in project funds are directly associated with environmental management activities articulated in the discussion and budget for Alternative II in Annex VII.I. These funds provide for the employment of local-hire specialists in environmental monitoring and education, training of LUPE personnel, the establishment of agreements to provide LUPE with special services in pest management and other areas, short-term technical assistance in specific areas, and procurement of a vehicle and equipment for monitoring environmental indicators.

V. CONDITIONS AND COVENANTS

A. NEGOTIATING STATUS

Representatives of the MNR have worked closely with Mission staff throughout the design process, and have reviewed project description sections of the PP. Representatives of SECPLAN and MHCP have received briefings on design progress and have participated in preliminary design discussions with USAID and MNR STAFF. There are no outstanding technical issues to be resolved.

Potential policy level issues which the Project will address involve the personnel management and administrative autonomy of the Project office:

1. Our desire to utilize multiyear contracts for personnel to mitigate the disruptive effects of annual contract renewal for all employees.

2. Our desire, supported by MNR, to insulate the project office from myriad demands by other factions within the MNR organization, by establishing limited, clear lines of authority to the Minister, and establishing the Project Director's position at a level equivalent to a Directorate.

Broader policy issues affecting the agricultural sector as whole (marketing, pricing schemes, grain imports, agricultural loan interest rates, etc.) will be addressed by the Agricultural Policy Project and PL 480 Title I and ESF Programs.

B. CONDITIONS PRECEDENT TO INITIAL DISBURSEMENT

Prior to the first disbursement of the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfacotry to A.I.D.:

1. An opinion of the Attorney General of the Republic of Honduras, or of counsel acceptable to A.I.D., that this Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Grantee and that it constitutes a valid and legally binding obligation of the Grantee in accordance with all of its terms;

2. A statement of the names of the persons holding or acting in the office of the Grantee specified in Section 8.2, and a specimen signature of each person specified in such statement.

3. Nomination in writing by the Grantee of three (3) qualified individuals for the position of Project Director and three (3) qualified individuals for the position of Project Administrative Officer, with draft two-year contracts. The individuals will be selected for each position by mutual agreeement of A.I.D. and the MNR, and subsequétly will be ratified in writing.

4. Evidence that the Grantee has selected and contracted appropriate central office facilities in Tegucigalpa, including adequate space for offices, parking, vehicle maintenance, and secure storage for commodities.

C. CONDITIONS PRECEDENT TO ADDITIONAL DISBURSEMENTS

Prior to the disbursement of funds or the issuance by A.I.D. of documentation pursuant to which disbursement will be made, for any purpose other than (i) technical assistance and Project monitoring initiation costs, including minimal commodity support for the technical assistance resources; (ii) rental of central office facilities; (iii) contracts for the Project Director, two sub-Directors and Administrative Officer; and, (iv) continuation of Natural Resource Management Project (NRMP) Project No. 522-0168, participant training in process, the Grantee will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

1. Evidence that the Grantee, represented by the Minister of Natural Resources, has installed the Project Office with Project Director and Administrative officer, and has rehired selected NRMP personnel and adopted the NRMP management guidelines into the new Project Office and facilities;

2. An annotated inventory of all remaining non-expendable A.I.D.-financed equipment, furniture, and vehicles pertaining to the NRMP, and evidence that the Grantee officially has transferred these items to the Project;

3. An organizational chart for the Project including names and positions of all NRMP personnel rehired, and new positions proposed to complete staff requirements for initiating project activities, and showing the Project's relationships to other dependencies of the Ministry of Natural Resources;

4. An initial implementation plan for calender year 1989 including Project operations, reorganization, procurement needs, revised personnel and commodity management plan, anticipated first-year needs for special technical services, and specific extension implementation targets.

E. COVENANTS

Except as A.I.D. otherwise agrees in writing, the Grantee agrees to the following covenants the following:

1. That the Cooperating Country agrees to the issuance of multiyear contracts, for up to the life of the project, for project-funded personnel.

2. That the MNR, at the request of the Project Office and through the DPS, shall furnish to A.I.D. for its review and approval by the first of January of each year during the life of the Project, an annual detailed implementation plan and budget, derived from the Annual Operating Plan and the approved GOH budget. The implementation plan and budget shall be in form and substance satisfactory to A.I.D.

3. That the Ministry of Natural Resources shall negotiate and execute extensions of the NRMP agreements with (a) COHDEFOR for (i) assignment of the benefits of Project tree plantings to participating farmers and (ii) collaborative agriculture development activities in selected forest areas and (b) BANADESA for the execution of a fiduciary agreement for managing credit and grant accounts for participants. These agreements shall be extended through the PACD.

4. That the Ministry of Natural Resources shall establish, as a part of the Project agreements with an appropriate conservation non-governmental organizations to provide relevant technical services and training to support the Project's watershed and wildlands/buffer zone management activities.

5. That the MNR, at the request of the Project Office and through the DPS, shall provide A.I.D. with quarterly Project progress reports in form and substance satisfactory to A.I.D.

VI. MONITORING, EVALUATIONS AND AUDITS

A. Project Information System

This Project is an impact-oriented project emphasizing sustainable productivity gains among the target population. As such, the Project fully incorporates into the design the NRMP's decentralized planning and evaluation system. The project will support this system to ensure that data for monitoring and evaluation are integrated into the overall design. The system will enable managers to obtain timely and accurate feedback on interim effects of implementation. The project's planning, monitoring and internal evaluation system is described in Annex I. In brief, the project's information system consists of a continual effort to: (1) establish general baseline date; (2) develop work plans for extending technologies; and (3) monitor farm-level impacts and provide follow-up information to adjust implementation plans and to improve service delivery.

B. Evaluation ($440,000)

Two joint GOH/AID external evaluations will be implemented based on the baseline and other data generated thorough the Projects Information System. These external evaluations during years three and at the end of the project will be in addition to the regular planning and monitoring process implemented over the course of the project.

The purpose of the first evaluation is to assess progress toward attainment of the project's objectives. This evaluation will examine LUPE's management systems, institutional arrangements, and extension outreach activities as well as USAID's oversight and management of the project. It will measure progress and assess the possibility of moving LUPE into new geographic areas and suggest what areas should be covered. This examinatio will be in terms of measuring how these systems and processes are a..ecting the achievement of expected outputs and the link between these outputs and the degree to which they are contributing to the achievement of the Project's purposes. Baseline data will come from progress reports, implementation plans and internal GOH/AID monitoring of the project.

The second evaluation will focus more directly on ascertaining the impact of the project. The purpose of this evaluation will be to determine what effect project intervention have had on improving the socioeconomic and nutritional well-being of the beneficiary groups. This evaluation will concentrate on the farm family as a unit and will pay particular emphasis in the role of women within the context of the project.

The evaluation will be based on the baseline date established under this project and on other relevant studies which focus on changes in farm family income, national levels, consumptions patterns, nutritional levels etc. It will focus on:

- The degree to which the economic, and social and nutritional well-being of the small hillside farm family is improved.
- The cost and returns to the farm from agroforestry and soil conservation technologies.
- The extent to which soil fertility and quality has been stabilized.
- The adequacy of project data collection and information utilization systems.
- The nutritional well-being of the beneficiary groups.

The evaluation of the project's contribution to changes in economic well being will be based primarily on changes in income and employment opportunities. Social well being will be partially measured through changes in nutritional condition.

C. Audits and Financial Review

Periodic financial audits will be required. The FARS in the Controllers Office has undertaken an initial financial review to determine that adequate systems are in place. At least two additional audits/financial reviews will be made during the life of the project. These will be carried out by FARS to ensure that proper accounting practices are employed, and that project financial, material and human resources are being utilized properly.

ANNEX A

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK MATRIX

Life of Project
From FY 89 to FY 98
Total U.S. Funding $36,000,000

Project Title and Number: Land Use and Productivity Enhancement (522-0292)

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
Goal:			
To increase the socio-economic well-being of the rural family.	- Farm family income increases at a rate equal to or greater than per capita GDP - Farm family income will increase through increases of production, diversification - of production, storage and processing, and marketing of surpluses.	- Government economic reports - International donor reports - Evaluation - Satelite imagery	- Continued stabilization of the Honduran economy and expansion of free market policies - Allocation of GOH resources into agriculture
Purpose			
To improve hillside agricultural production and productivity on a sustainable basis, including the management and effective protection of Honduran natural resources on which production depends.	- % real growth on value added in agriculture - 30,000 metric ton annual increase in - production of crops for the domestic market - Decrease in the pace of deforestation degradation of the environment - Five major watersheds in LUPE implementation areas will be protected and more productive - 50,000 hillside farmers (including approximately 12,500 female headed households) will have stabilized natural resources on their farms and have adopted environmentally appropriate cultivation practices and soil and water conservation measures. - An additional 15,000 nonbeneficiary farm families, within the LUPE project area, will have adopted one or more of LUPE promulgated technologies.	- MNR, LUPE reports - Satelite photos - Project evaluations	- Acceptable policy environment relative to food pricing, imports of grains, and land tenure - Adoption of appropriate cultivation practices and and conservation measures contributes to improving yields.

Project Title and Number: Land Use and Productivity Enhancement (522-0292)

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
	- Hillside farming families will benefit from a more sufficient and constant food supply, as reflected in yield increase of basic grains of an average of 30% from traditional yields of approx. 13 quinteles/ha. - Malnutrition among participating farm families will decline as measured by (i) decreases in cases of malnutrition recorded at medical posts/units, and (ii) a decrease in the percentage of children under five who are two or more standard deviations away from a reference population for age for weight (wasting).	- LUPE project records - MOH nutrition surveys carried out every three years - Project evaluations	Improvements to income and farm production have a positive impact on nutritional levels.
Outputs			
Small hillside farms become a more efficient sustainable productive unit. (1) improved cropping system	- A 30% increase in food grain production by 50,000 participating hillside farmers (approximately 60% marginal small farmers, 40% small commercial farmers). - An increase of 50,000 ha in hillside lands under improved soil/water/forest management system. - Decreased levels of malnutrition among children under five (wasting). - Crop diversification, providing fruits and vegetables, practiced by 5,000 farm families. - An increase by 5,000 family and community gardens planted and maintained by women of participating communities.	- LUPE project records - MOH surveys - Project evaluations and surveys - Site visits	Recommended technologies can be sustained at minimal or no cost by small farmers

Project Title and Number: Land Use and Productivity Enhancement (522-0292)

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
-	Marketable production in excess of subsistence needs of 5,000 farmer producer families.		
-	Agroforestry applications to include 6,000,000 multipurpose trees plus 500,000 fruit trees through development of 500 new community and small on-farm nurseries.		
-	A 10% increase in market value of farm animals produced by participating families.		
(2) improved animal systems	- Improved ground cover in 5,000 ha of pasture and range lands. - 5,000 farm families involved in improved small animal husbandry. - 1,000 ha of currently overgrazed land returned to forest production or made available for cultivation or controlled grazing through silvo-pastoral techniques.		
(3) improved post-harvest handling, processing and marketing.	- 2,500 metric ton increase in on-farm storage capacity of basic grains. - 3,000 metric ton reduction in post-harvest loses due to spoilage and pests. - An additional 3,000 farm families engaged in preserving, grading, packaging, and storage processes which will enhance agricultural product marketability. - A 20% increase in farm-gate sales by participating hillside farmers. - Improved subsistence security and nutritional health for 50,000 families by reduction in post-harvest losses, self-sufficiency for subsistence, and dietary improvement.		

Project Title and Number: Land Use and Productivity Enhancement (522-0292)

NARRATIVE SUMMARY	OBJECTIVE VERIFIABLE INDICATORS				MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
	USAID		LOP COSTS			
	FX	LC	TOTAL USAID	GOH	TOTAL	
Inputs						
LDPE Extension Service Personnel and Per Diem Costs		10,944	10,944	10,944	21,888	
Extension Services by NGOs	500	1,856	2,356		2,356	
Expatriate Technical Assistance	2,849	-	2,849		2,849	
Local Technical Resources/Services	2,045	2,000	4,045	-	4,045	
Project Management	1,112	178	1,290	-	1,290	
Training Plan	1,353	843	2,196	-	2,196	
Commodities	2,471	590	3,061	165	3,226	
Vehicles (and parts)	2,571		2,571		2,571	
Vehicle Operation and Maintenance	102	2,796	2,898	751	3,649	
Rents		584	584	1,000	1,584	
Grants and Credit Inputs		1,307	1,307	500	1,807	
Project Operational Monitoring and Evaluation		1,341	1,341	640	1,981	
External Evaluations and Audits	558		558		558	
TOTALS	31,503	22,497	36,000	14,000	50,000	

ANNEX B

01-73

SECRETARIA DE HACIENDA Y CREDITO PUBLICO
REPUBLICA DE HONDURAS

Tegucigalpa,D.C. Diciembre 28 de 1988 CP-SF-013

RECEIVED
USAID/HONDURAS
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11 JAN 89 09 32

Señor
JOHN SANBRAILO
Director Agencia para el
Desarrollo Internacional
Su Despacho.

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REF.: SOLICITUD DE FINANCIAMIENTO PARA EL PROYECTO MEJORAMIENTO DEL USO Y PRODUCCION DE LA TIERRA" (L U P E)

Señor Director:

La Secretaria de Hacienda y Credito Publico en representación del Gobierno de Honduras y en atencion a Solicitud presentada por la Secretaria de Recursos Naturales formalmente solicita, a la Agencia para el Desarrollo Internacional (AID), financiamiento por un monto estimado de USA $ 36.000.000.00 (TREINTA Y SEIS MILLONES DE DOLARES AMERICANOS), en caracter de donacion los cuales serán utilizados en la ejecucion del Proyecto Mejoramiento del Uso y Productividad de la Tierra (LUPE).

El Proyecto anterior ha sido desarrollado por el Ministerio de Recursos Naturales con la colaboracion de AID y atenderá los problemas de la rápida destruccion de los bosques, la erosion de los suelos y la baja productividad de los pequeños y medianos agricultores de laderas.- En este sentido se aprovechara la exitosa experiencia obtenida en la ejecución de los Proyectos "Manejo de Recursos Naturales" y "Tecnologia Rural" que fueran tambien financiados por la Agencia para el Desarrollo Internacional.

A traves del Proyecto "Mejoramiento del Uso y Productividad de la Tierra" (LUPE) se beneficiaran unas 50.000 familias campesinas durante un periodo de ocho años. Se establecera una red de noventa agencias rurales de extensión y se contara con un equipo humano y logístico apropiado para mejorar el manejo y la productividad sostenida de la tierra de ladera de Honduras y la eficiencia de la produccion y el mercadeo de los productos de las familias beneficiadas del Proyecto.

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El costo estimado del Proyecto es de US$ 50.000.00 (CINCUENTA MILLONES DE DOLARES AMERICANOS), de los cuales el Gobierno de Honduras aportaría en fondos de contraparte local el monto de US$ 14.000.000.00 (CATORCE MILLONES DE DOLARES AMERICANOS), incluyendo nuevos costos, costos en especie y la asignación de los bienes remanente del Proyecto Manejo de Recursos Naturales; la diferencia la constituyen los fondos solicitados a AID en caracter de donación.

Mucho agradeceremos se le de el trámite correspondiente a la Solicitud lo más pronto posible ya que existe la intención de iniciar este proyecto durante el proximo año.

Con respeto y consideración.

SECRETARIA DE HACIENDA Y CREDITO PUBLICO Honduras, C. A.

[illegible] BUSTRON
MINISTRO

CFC/OIP/nip.

RESPONSE TO LAC/DAEC LUPE PID REVIEW

CABLE (88 STATE 101209)

This annex summarizes the Mission's response to the LAC/Development Assistance Executive Committee's (DAEC) review comments and guidance for project paper development as transmitted in the guidance cable which delegated authority to approve this project to the Mission. This response summaries how each of the guidance points in the cable is addressed in the Project Paper and refers the reader to the appropriate section of the Project Paper for further details.

1. Policy

The PID review cable requested that the Mission consider specific policy modifications (i.e. policies afffecting land tenure or commodity marketing at the beneficiary level) that could be leveraged by the LUPE project. The Mission has decided that the LUPE project will address constraints facing the farmer on his/her land and the surrounding watershed, as well as constraints to market and credit accessibility. However, policy and instiututional constraints will not be addressed by this project but rather by the Mission's Agricultural Development Project proposed for FY 1990. Further explanation of this decison can be found in Sections II.A.2 and II C.3.b. of the Project Paper.

2. Sustainability

The PID review cable requested that during PP development the following questions relating to sustainability be answered and included in the design of the project.

a) What will sustain the changes in production behavior and growth;
b) How will the project deal with the need for ongoing change beyond the length of the Project; and
c) What will be the demand for project services at the PACD and how will be demand be addressed?

The project seeks to institutionalize change at the farm level, and not necessarily at the ministerial level. LUPE is not designed as an institution-building project with the MNR, but as an impact-oriented project emphasizing sustainable production/productivity gains among the target population. The key to effective extension and sustainable changes in farming practices will be the use of low paid paratechnicians and liaison farmers (community leaders) who will reside in the community and who will be trained in basic agricultural practices. The paratechnicians (paid by the GOH) and the liaison farmers, who will assist the extensionist during the life of the project, will remain in the communities to provide guidance, support and

continuity to sustain the changes made during the life of the project. Section III.A.s. Project Strategy of the Project Paper, and Annexes F.1. Integrated Hillside Agriculture and Resource Management and F.2. Extension and Training provide a detailed discussion of the process of extension, the agricultural changes, and the sustainability of these activities.

3. Financial Management

The PID review cable asked that the Mission assure that all entities receiving funds under the Project have sound financial systems. To this end, the FARs unit of the Mission Controller's Office has reviewed the MNR's financial management systems which are in place under the current Natural Resources Management Project (NRMP). The FARS recommended that the NRMP should computorize their administrative systems and provide training for key administrative personnel. Not withstanding these two recommendations the FARS unit found the NRMP's financial systems adequate to administer the LUPE project. Furthermore, the Mission screened and reviewed all NGOs which may receive funding under the LUPE project. FARS will review financial management systems of each NGO selected prior to programming of funds for each NGO. Annex E: Institutional analyis and Implementation Approach provides summaries of all of the NGOs reviewed during the PP design.

4. Project Complexity

In the PID review cable AID/W expressed concern about the complexity and scale of the project, and that care should be taken to ensure the manageability of the project. It should be noted that at the time of the PID review in AID/W, shrimp development was included as one of the project activities. Since that time, the Mission has decided to not to include the shrimp component and to focus the project on integrated hillside farming and post harverst activities. To assure timely start-up and implementation, a detailed project implementation plan was developed during project design. PD and S funds will be used to provide technical assistance for these early implementation activities during the start-up phase of the project.

5. Credit

At the time of the LUPE PID review, the project's credit strategy was very general, therefore AID/W asked that the Mission send a detailed description of the credit component to AID/W prior to project authorization. The Mission sent a lengthy detailed cable to LAC Bureau on 12/27/88 (88 Tegucigalpa 22009). This cable is attached to the Project Paper as part of this Annex. The credit strategy can be found in Section III.F.5. Project Incentives and Credit Program of the Project Paper.

6. WID Issues - The PID cable requests that informal and formal survey strategies be strengthened to identify in greater detail the problems women face regarding: roles in commercial enterprises; constraints on access to

credit; and access to training opportunities. The LUPE Design Team was very conscious of this mandate during project design and feels that women are fully integrated into this project. With regard to the surveys on women's issues, all of the project information, monitoring, planning and evaluation instruments are dissaggregated by sex, and particular attention has been paid to women's problems in agriculture. Annex J Project Information System describes the planning, monitoring and evaluation system to be used by the LUPE project. Furthermore a specific project training objectives is geared toward the women beneficiaries and the women extensionists and other project staff.

7. Effective Market Demand Per the PID review cable the Mission has incorporated, in the Economic Analysis (Annex H), a discussion of the effective market demand (aggregate demand analysis) for the prospective increases in production relative to market availability and impact on the domestic prices structure for the marginal and commercial farmers. The results of this analysis indicate that the contribution of this single project will great adversely local market prices for basic grains. The economic analysis is summarized in Section IV D of the Project Paper and is presened in full in Annex I.

8. Environmental Assessment. Per the PID review cable an EA scoping excercise was carried out, as well as a full EA. The EA was approved by the REgional Environmental Officer in AID/W, and the approval cable, as well as the EA are attached to the Project paper as Annex I.

9. Farmer Incentives: The PID review cable asked that the project incentive program be in line with A.I.D. Policy Paper: Pricing, Subsidies and related Policies on Food and Agriculture (November 1982). The policy was fully considered and incorporated into the project's incentive strategy. Details of the LUPE Incentives program can be found in Section III.F.5. of the PP and the Credit Cable sent to LAC Bureau on 12/27/88.

10. Nutrition Impact: Per the PID review cable the project will coordinate informally with the Health Sector II Project for collecting data on nutrition indicators.

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USAID/HONDURAS
35 MAR 1988
C&R UNIT

E.O. 12356: N/A
TAGS:
SUBJECT: PID REVIEW LAND USE PRODUCTIVITY ENHANCEMENT (522-0292)

1. THE DAEC REVIEWED THE SUBJECT DOLS 36.0 MILLION PROJECT MARCH 3, 1988. THE PRESENTATION BY THE MISSION REPRESENTATIVES WAS APPRECIATED AND RESULTED IN A CLEARER UNDERSTANDING OF BOTH THE PROPOSED PROJECT ACTIVITIES AND THE PREVICUS PROJECT EXPERIENCE BEING BUILT UPON. BUREAU RECOGNIZES THE VALUABLE CONTRIBUTION PEACE CORPS HAS HAD IN PREDECESSOR PROJECTS AND ENDORSES THE PROPOSED COLLABORATION IN THE NEW PROJECT: THE DAEC DECIDED INTENSIVE DEVELOPMENT OF THE PP SHOULD PROCEED WITH PROJECT APPROVAL AUTHORITY TO BE DELEGATED TO USAID. THE TIMETABLE PROPOSED IN THE PID INDICATES A FY 88 OBLIGATION TARGET, YET THE FY 89 CP SHOWS AN FY 89 START. THE BUREAU REQUESTS THE MISSION TO CLARIFY THE DISCREPANCY. IF AN FY 89 START IS PLANNED THEN THE PROJECT SHOULD BE DEVELOPED AS ENTIRELY GRANT FUNDED IN KEEPING WITH THE FY 89 CP. GUIDANCE FOR PP DEVELOPMENT FOLLOWS.

2. POLICY--THE DAEC EXPRESSED CONCERN OVER THE APPARENT POLICY CONSTRAINTS DESCRIBED IN THE PID AND AT THE SAME TIME THE ABSENCE OF ANY SIGNIFICANT POLICY IMPROVEMENTS WHICH THE PROJECT WOULD ADDRESS. GIVEN THE SIZE OF THE PROPOSED PROJECT, THE MISSION NEEDS TO LOOK BEYOND WHETHER THE METHOD OF PROGRAMMING IS WORKABLE AND TOWARD WHAT POLICY ACHIEVEMENTS COULD BE ATTAINED. THE MISSION NEEDS TO CONSIDER WHAT SPECIFIC POLICY MODIFICATIONS COULD BE LEVERAGED BY THE PROJECT. POLICIES AFFECTING LAND TENURE AND COMMODITY MARKETING, ESPECIALLY AT THE BENEFICIARY LEVEL, SHOULD BE CAREFULLY CONSIDERED. AN EXPLICIT DESCRIPTION OF WHICH POLICY OBJECTIVES AND HOW TO DEAL BROADLY WITH POLICY ISSUES SHOULD BE DEVELOPED IN THE PP DESIGN, TAKING INTO ACCOUNT THE ROLE OF ESF NEGOTIATIONS, INCLUDING SECTORAL EMPHASIS, AND OTHER MECHANISMS IN THIS PROCESS.

3. SUSTAINABILITY--CONCERNS OVER SUSTAINABILITY REQUIRE THAT DURING PP DEVELOPMENT THE MISSION CLOSELY REVIEW

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MD
DMD
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CP CM
REA
CHRN
CSR
DUE DATE 4/05
ACTION TAKEN
ATTACHM. YES NO
INITIALS

STRATEGY AND DEVELOP BENCHMARKS FOR PROJECT AGENCIES TO ATTAIN BY PROJECT COMPLETION, E.G., MINISTRY OF NATURAL RESOURCES, ZAMORANO SCHOOL: THE PROJECT'S INSTITUTIONAL AND TECHNICAL ANALYSIS SHOULD ANSWER, AMONG OTHER THINGS, THE FOLLOWING QUESTIONS. WHAT WILL SUSTAIN THE CHANGES IN PRODUCTION BEHAVIOR AND GROWTH? HOW WILL THE PROJECT DEAL WITH THE NEED FOR ONGOING CHANGE BEYOND THE LENGTH OF THE PROJECT? WHAT WILL BE THE DEMAND FOR PROJECT SERVICES AT PACD AND HOW WILL THE DEMAND BE ADDRESSED?

4: FINANCIAL MANAGEMENT--THE BUREAU RECOGNIZES THAT SOUND FINANCIAL MANAGEMENT IS ESSENTIAL FOR EFFECTIVE USE OF RESOURCE. OFTEN THE PUBLIC SECTOR LACKS THE TOOLS TO IMPLEMENT ADEQUATE FINANCIAL MANAGEMENT SYSTEMS. MISSION NEEDS TO ASSURE THAT ALL ENTITIES RECEIVING FUNDS UNDER THE PROJECT HAVE SOUND FINANCIAL SYSTEMS. ADDITIONAL TECHNICAL ASSISTANCE SHOULD BE CONSIDERED IF NECESSARY.

5. PROJECT COMPLEXITY--WE ARE CONCERNED ABOUT THE SCALE OF THE PROJECT SINCE THERE ARE MANY ACTIVITIES HAPPENING SIMULTANEOUSLY. IT APPEARS THAT THE SUCCESS OF THE PROJECT DEPENDS ON THE SUCCESSFUL INTRODUCTION OF A NUMBER OF INDEPENDENT ACTIVITIES, INCLUDING: THE CREDIT SYSTEM; THE ADOPTION OF THE TECHNOLOGICAL PACKAGES; AND THE ENHANCEMENT OF THE ROLE OF WOMEN.. THESE ACTIVITIES NEED TO BE WELL MANAGED AND COORDINATED. THEREFORE, IN PP DEVELOPMENT, EFFORT SHOULD BE FOCUSSED ON THE MANAGEABILITY OF THE PROJECT AND ON WHAT ACTIVITIES NEED

TO BE DONE AND WHEN, INCORPORATING PHASING WHERE APPROPRIATE. IN PP DESIGN THE TECHNOLOGY PACKAGES TO BE INTRODUCED NEED TO BE IDENTIFIED AND ANALYZED REGARDING WHAT PROPORTION OF THEM HAVE YET TO BE DEVISED AND SITE TESTED.

6. CREDIT--IT IS UNDERSTOOD THAT PID ELABORATION OF THE CREDIT COMPONENT WAS VERY GENERAL SINCE USAID OVERALL CREDIT STRATEGY IS CURRENTLY BEING REVIEWED. THE BUREAU WISHES TO REVIEW THE CREDIT COMPONENT WHEN IT IS DEVELOPED DURING PROJECT DESIGN. SPECIFIC LAC CONCURRENCE IS NOT REQUIRED BUT THERE IS CURRENTLY NOT ENOUGH INFORMATION TO DETERMINE HOW THE COMPONENT WILL BE DESIGNED. MISSION SHOULD SEND A DESCRIPTION OF THIS PP COMPONENT ASAP SO THAT THE BUREAU MAY REVIEW IT AND EXPRESS ANY CONCERNS/COMMENTS PRIOR TO FINAL PROJECT DESIGN AND AUTHORIZATION. IN ADDITION, AN ANALYSIS OF THE PROJECT'S CREDIT ELEMENTS, INCLUDING HOW CREDIT IS BEING USED, NEEDS TO BE BUILT INTO THE PROJECT'S EVALUATION SYSTEM.

7. WID--WE AGREE WITH THE NEED TO INTEGRATE THE PARTICIPATION OF WOMEN IN THE PROJECT TO IMPROVE THEIR ACCESS TO DEVELOPMENT RESOURCES AND TECHNOLOGIES IN BOTH TRADITIONAL AND NONTRADITIONAL SPHERES. THE DEVELOPMENT OF INFORMAL AND FORMAL SURVEY STRATEGIES NEEDS TO BE STRENGTHENED TO IDENTIFY IN GREATER DETAIL SOME OF THE PROBLEMS WOMEN FACE IN HONDURAS REGARDING: ROLES IN COMMERCIAL ENTERPRISES; CONSTRAINTS ON ACCESS TO CREDIT; POTENTIAL ROLES IN MARICULTURE DEVELOPMENT; AND ACCESS TO TRAINING OPPORTUNITIES.

8. EFFECTIVE MARKET DEMAND--IT IS RECOGNIZED THAT HONDURAS HAS FACED SUBSTANTIAL SHORTFALLS IN PRODUCTION OF BASIC GRAINS OVER THE PAST TWO YEARS: NEVERTHELESS, THERE IS CONCERN OVER THE POTENTIAL MARKETING AND PRICE IMPACTS THAT MAY RESULT FROM SUBSTANTIAL INCREASES IN FARMER PRODUCTION. THE MISSION NEEDS TO INCORPORATE IN THE ECONOMIC ANALYSIS A WELL-SUPPORTED DISCUSSION ON THE EFFECTIVE MARKET DEMAND (AGGREGATE DEMAND ANALYSIS) FOR THE PROSPECTIVE INCREASES IN PRODUCTION RELATIVE TO MARKET AVAILABILITY AND IMPACT ON DOMESTIC PRICE STRUCTURE FOR THE MARGINAL AND COMMERCIAL FARMERS.

9. ENVIRONMENTAL ASSESSMENT (EA)--SINCE THERE IS A POSITIVE ENVIRONMENTAL DETERMINATION FOR THE PROJECT, AN EA SCOPING EXERCISE WILL NEED TO BE CARRIED OUT TO IDENTIFY SIGNIFICANT ISSUES RELATING TO PROPOSED

ACTIONS. THE SCOPING EXERCISE SHOULD: (A) TAKE INTO ACCOUNT PREVIOUS STUDIES AND ENVIRONMENTAL ASSESSMENTS RELATING TO PROPOSED ACTIVITIES; (B) RESULT IN A STATEMENT IDENTIFYING THE SCOPE AND SIGNIFICANCE OF ISSUES TO BE ANALYZED; AND (C) SUGGEST A STRATEGY FOR ANALYZING ENVIRONMENTAL IMPACTS FOR SITES IDENTIFIED LATER DURING IMPLEMENTATION: AS A COMPONENT OF THIS SCOPING EXERCISE AND PROJECT DESIGN, THE MISSION IS ENCOURAGED TO EXPLORE DEVELOPING MANAGEMENT PLANS FOR SELECTED AREAS, SUCH AS A BUFFER ZONE SURROUNDING THE RIO PLATANO RESERVE OR OTHER PROTECTED AREA, AS AN INTEGRAL COMPONENT OF THE PROJECT TO DEMONSTRATE THE COMPLEMENTARITY BETWEEN NATURAL RESOURCE MANAGEMENT, CONSERVATION AND DEVELOPMENT.

10. FARMER INCENTIVES--IN THE PP DESIGN, CARE SHOULD BE TAKEN TO DESCRIBE THE NATURE AND DELIVERY MECHANISM OF PROPOSED FARMER INCENTIVES, ESPECIALLY REGARDING A:I.D. POLICY PAPER: PRICING, SUBSIDIES, AND RELATED POLICIES ON FOOD AND AGRICULTURE (NOVEMBER 1982).

11. NUTRITION IMPACT--THE DAEC SUPPORTS INCLUDING NUTRITIONAL STATUS AS A CRITERION FOR PROJECT SITE SELECTION. THE DAEC RECOMMENDS THAT LUPE INFORMALLY COORDINATE WITH DATA COLLECTION ACTIVITIES UNDER THE HEALTH SECTOR II PROJECT TO HELP IDENTIFY THOSE AREAS WITH NUTRITIONAL PROBLEMS. WHITEHEAD
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DRFTD: DE:RWHELDEN
CLEAR: [redacted]:LALASSEN
DISTR: AID
ORGIN: OCR

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FOR LAC/DR

E.O. 12356: N/A
SUBJECT: LAND USE AND PRODUCTIVITY ENHANCEMENT PROJECT (522-0292): CREDIT STRATEGY

REF: STATE 101209 (4/01/88)

1. PER REFTEL (PARA 6), USAID HEREWITH TRANSMITS THE CREDIT STRATEGY AS DESCRIBED IN THE FINAL DRAFT OF THE LUPE PROJECT PAPER. AS NOTED IN PARAGRAPH 10, REQUEST LAC/DR ADVISE BEFORE JAN 11 IF COUNTRY CHECKLIST HAS NOT BEEN DONE AS SUBSEQUENT TO THAT DATE MISSION INTENDS TO PROCEED WITH AUTHORIZATION AND OBLIGATION OF THIS PROJECT.

2. SUMMARY: THE GOAL OF THE LUPE PROJECT IS TO INCREASE THE SOCIOECONOMIC WELL-BEING OF THE RURAL HONDURAN FAMILY. THE PROJECT PURPOSE IS TO IMPROVE HILLSIDE AGRICULTURAL PRODUCTION AND PRODUCTIVITY ON A SUSTAINABLE BASIS, INCLUDING THE MANAGEMENT AND EFFECTIVE PROTECTION OF HONDURAN NATURAL RESOURCES ON WHICH PRODUCTION DEPENDS. LUPE ACTIVITIES WILL BE: IMPROVED CROPPING SYSTEMS; IMPROVED ANIMAL SYSTEMS, POST HARVEST PROCESSING AND STORAGE; AND FACILITATED MARKETING, INCLUDING ASSISTANCE TO FARMERS TO SECURE MARKET INFORMATION AND CREDIT.
THE PROJECT'S CREDIT STRATEGY IS TO BUILD ON THE POSITIVE EXPERIENCE UNDER THE NATURAL RESOURCES MANAGEMENT PROJECT NO. 522-0168 (NRMP) IN WHICH A FIDUCIARY ACCOUNT WAS ESTABLISHED IN BANADESA (NATIONAL AGRICULTURAL DEVELOPMENT BANK), A WHOLLY OWNED GOVERNMENT BANK, TO PROVIDE SMALL LOANS AND INCENTIVES TO NRMP PARTICIPANTS. LUPE WILL CONTINUE TO USE AND EXPAND THIS CREDIT MECHANISM, AS EXPLAINED BELOW, FOR THE SMALL SUBSISTENCE FARMERS. THIS STRATEGY WILL PERMIT THE PROVISION OF TIMELY LIMITED CREDIT FOR PROMISING ENTERPRISES. IN AN EFFORT TO BROADEN PRIVATE BANKING SECTOR PARTICIPATION IN SMALL FARMER LENDING, THE PROJECT WILL REFER AND ASSIST PARTICIPATING FARMERS TO ACCESS FINANCING EXISTING UNDER A.I.D. AND OTHER GOH PROJECTS IN THE AREAS OF IRRIGATION, RURAL TECHNOLOGIES AND SMALL BUSINESS. THE PROJECT WILL PLACE PARTICULAR EMPHASIS ON

FACILITATING LOANS TO WOMEN FARMERS AND RURAL WOMEN'S GROUPS INVOLVED IN POST HARVESTING OR MARKETING ACTIVITIES

IT SHOULD BE NOTED THAT THE LUPE PID DISCUSSED A CREDIT PROGRAM OF APPROXIMATELY DOLS EIGHT MILLION. AT THE TIME OF PID DEVELOPMENT, A SHRIMP PRODUCTION COMPONENT WAS ENVISIONED WHICH WOULD REQUIRE SUBSTANTIAL CREDIT INPUTS. SINCE THEN THE MISSION HAS DEVELOPED A STRATEGY FOR DEVELOPING THE SHRIMP INDUSTRY IN HONDURAS OUTSIDE OF LUPE AND HAS REMOVED THE SHRIMP COMPONENT FROM THE LUPE PROJECT DESIGN. CREDIT NEEDS UNDER THE PROJECT HAVE, THEREFORE, DROPPED SIGNIFICANTLY AND ARE BUDGETED AT DOLS 1,807,000. THE EXCLUSION OF SHRIMP PRODUCTION ALSO PERMITS THE PROJECT DESIGN TO CONCENTRATE ON THE SMALL HILLSIDE FARMERS AND TO UTILIZE A STRAIGHT-FORWARD AND PROVEN MECHANISM TO REACH THE SMALL HILLSIDE FARMERS.

3. BACKGROUND: THE LUPE PROJECT WILL CONTINUE TO PROVIDE INCENTIVES AND CREDIT THROUGH THE PROGRAM ESTABLISHED UNDER THE NATURAL RESOURCES MANAGEMENT PROJECT (NRMP). THE PROJECT DESIGN COMMITTEE HAS DISCUSSED AND REVIEWED CREDIT NEEDS FOR THE LUPE PROJECT WITH GOH COUNTERPARTS AND FINDS THAT CONTINUING WITH THE PROGRAM ESTABLISHED UNDER NRMP (BUT WITH ADDITIONAL FUNDING OF DOLS 1,807,000) WILL COVER ANTICIPATED CREDIT AND GRANT NEEDS.

4. THE CURRENT NRMP CREDIT/INCENTIVES PROGRAM IS MANAGED THROUGH A FIDUCIARY ACCOUNT WITH BANADESA. IN TURN, THE FIDUCIARY ACCOUNT IS DIVIDED INTO SUB-ACCOUNTS ONE FOR SMALL LOANS AND ANOTHER FOR THE INCENTIVES PROGRAM, WHICH IS A SMALL GRANTS PROGRAM. THE LOAN SUB-ACCOUNT HAS A BALANCE OF L.1,000,000. UPON TERMINATION OF THE NRMP PROJECT, THE FIDUCIARY PROGRAM WITH BANADESA WILL BE MODIFIED AND EXPANDED. L2,000,000 (DOLS 1,000,000) IN LUPE CREDIT FUNDS WILL BE ADDED TO THE LOAN SUB-ACCOUNT MAKING AVAILABLE L3,000,000 (DOLS 1,500,000) FOR LUPE CREDIT ACTIVITIES. THE BALANCE (L1,614,000 OR DOLS 807,000) WILL BE APPLIED TO THE INCENTIVES SUB-ACCOUNTS.

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5. NRMP LOANS (PROVIDED AT BETWEEN 13 PERCENT AND 15 PERCENT ANNUAL INTEREST RATE TO THE BORROWER) FINANCE PRIMARILY LIVESTOCK/RANGE IMPROVEMENT PRACTICES. OVER THE EIGHT YEAR NRMP LIFE OF PROJECT, APPROXIMATELY 200 LOANS WERE ISSUED TO FARMER GROUPS OF UP TO 25 MEMBERS AND TO INDIVIDUALS, WITH AN AVERAGE LOAN SIZE OF AROUND L.3,000. THE LOAN DEFAULT RATE (5 PERCENT) IS SUBSTANTIALLY LOWER THAN WITH SIMILAR AGRICULTURAL CREDIT LINES. THE CREDIT PROCESS IS RELATIVELY SIMPLE AND RELIES ON THE FIELD AGENCY EXTENSIONIST TO FOLLOW UP WITH THE FARMER AND ACCOMPANY THE FARMER TO THE BANK TO MAKE THE FIRST LOAN PAYMENT. THE BANADESA FIDUCIARY MECHANISM, UNDER THE NRMP, HAS BEEN VERY SUCCESSFUL IN PROVIDING SMALL LOANS TO PROJECT BENEFICIARIES. THIS IS DUE TO A COMBINATION OF GOOD ADMINISTRATIVE SUPPORT FROM BANADESA, SUPERVISION, TECHNICAL ASSISTANCE, AND FOLLOW-UP ON THE PART OF NRMP TECHNICIANS. THE INCENTIVES PROGRAM SUB-ACCOUNT HAS BEEN UTILIZED IN THE ESTABLISHMENT OF COMMUNITY TREE NURSERIES; THE INITIATION OF SOIL CONSERVATION STRUCTURES; AND THE PROMOTION AND ESTABLISHMENT OF FAMILY ORCHARDS, SMALL ANIMAL PROJECTS (CHICKENS, RABBITS, FISH), IMPROVED STOVES, FAMILY GARDENS, COMMUNITY WOMEN'S GROUPS, ETC. (PRODUCTIVE ACTIVITIES INVOLVING FUNDING OF OVER LPS. 83,000 TO OVER 4,400 RURAL WOMEN HAVE BEEN IMPLEMENTED UNDER THIS SUB-ACCOUNT).

6. DISCUSSION: AS MENTIONED ABOVE, THE LUPE PROJECT WILL ADD DOLS 1 MILLION TO THE EXISTING LOAN SUB-ACCOUNT IN BANADESA. THE PROJECT'S CREDIT STRATEGY IS TO PROVIDE TIMELY LIMITED CREDIT THROUGH THE FIDUCIARY MECHANISM FOR PROMISING ENTERPRISES (I.E. LIVESTOCK AND PASTURE IMPROVEMENT, CROP DIVERSIFICATION, POST-HARVEST ACTIVITIES, IRRIGATION, ETC.). SPECIAL EMPHASIS WILL BE PLACED ON FACILITATING LOANS TO WOMEN FARMERS AND RURAL WOMEN'S GROUPS INVOLVED IN POST-HARVEST AND MARKETING ACTIVITIES. EXCEPT ON A SPECIAL CASE-BY-CASE BASIS THIS CREDIT WILL NOT BE AVAILABLE FOR SOIL AND/OR WATER CONSERVATION IMPROVEMENTS AND SHORT-TERM PRODUCTION LOANS SINCE THERE ARE OTHER SOURCES AVAILABLE FOR THESE PURPOSES. THE NEW ADMINISTRATIVE AGREEMENT WHICH WILL GOVERN THE FIDUCIARY ACCOUNT WITH BANADESA WILL INCORPORATE PROCESSING AND MARKETING ACTIVITIES AND RURAL ENTERPRISES PROPOSED FOR THE LUPE PROJECT. BASED ON THE EXPERIENCE OF THE NRMP AND ON PROJECTIONS MADE IN THE DESIGN OF THE LUPE PROJECT, IT IS ESTIMATED THAT OVER THE LIFE OF THE PROJECT UP TO 800 LOANS OF AN AVERAGE SIZE OF L.2,500 WILL BE ISSUED. THE TERMS OF THE LOANS WILL BE UP TO FIVE YEARS, PROVIDED AT PREVAILING MARKET INTEREST RATES WHICH ARE BASED ON THE CENTRAL BANK OF HONDURAS' REDISCOUNT RATE. THIS RATE IS CURRENTLY 17 PERCENT. THE ATTACHED TABLE (IDENTIFICATION OF CREDIT NEEDS AND STRATEGY) ILLUSTRATES HOW CREDIT AND INCENTIVES REQUIREMENTS FOR LUPE BENEFICIARIES WERE CALCULATED.

7. IN AN EFFORT TO BROADEN PRIVATE BANKING SECTOR PARTICIPATION IN SMALL FARMER LENDING, THE PROJECT WILL FACILITATE ACCESS TO CREDIT PROVIDED UNDER THE IRRIGATION DEVELOPMENT PROJECT (522-0268), SMALL BUSINESS II PROJECT (522-0241), AND THE RURAL TECHNOLOGIES PROJECT (RTP). LUPE PARTICIPATING FARMERS WILL BE REFERRED TO THESE AND OTHER LINES OF CREDIT WHEN THEIR PARTICULAR PROJECT IS TOO LARGE FOR FINANCING UNDER THE LUPE/BANADESA PROGRAM AND IS FINANCIALLY PROMISING AND RELATED TO THE TYPES OF ACTIVITIES FINANCED BY THESE CREDIT LINES. FINALLY, THE PROJECT WILL HIRE AN AGRICULTURAL CREDIT SPECIALIST TO DEVELOP CREDIT ALTERNATIVES, TRAIN EXTENSIONISTS IN CREDIT MANAGEMENT, AND ASSIST AGENCIES IN FACILITATING CREDIT TO POTENTIAL CLIENTS.

8. IT IS EXPECTED THAT LOAN REFLOWS, INCLUDING INTEREST, WILL BE USED TO MAINTAIN THE INTEGRITY OF THE ACCOUNTS. UPON COMPLETION OF THE LUPE PROJECT THE CREDIT LINE WILL CONTINUE TO BE LENT FOR SIMILAR PURPOSE AND UNDER SIMILAR CONDITIONS.

9. EXPERIENCE HAS SHOWN THAT THE MAJORITY OF MARGINAL FARMERS (CATEGORY 1) DO NOT QUALIFY FOR CREDIT AND HAVE VERY LIMITED NEEDS FOR IT. UNDER THE EXISTING LUPE/BANADESA PROGRAM, GRANTS IN THE FORM OF PRODUCTION INPUTS, FOOD, OR CASH, ARE USED TO

ENCOURAGE INITIAL SOIL AND WATER CONSERVATION PRACTICES FOR SELECTED PARTICIPANTS, ESTABLISH COMMUNITY NURSERIES, OR WOOD LOTS FOR FIREWOOD, REESTABLISH/MAINTAIN FOREST AREAS WHICH PROTECT LOCAL WATER SOURCES, AS WELL AS FOR AGROFORESTRY PRACTICES AND PRODUCTIVE W.I.D. ACTIVITIES. GRANTS ARE GIVEN DIRECTLY TO A COMMUNITY, A GROUP, OR AN INDIVIDUAL BENEFICIARY THROUGH THE EXTENSION AGENCY, AND PANADESA'S ROLE IN THIS PROCESS IS AS A DISBURSING AND ACCOUNTING AGENT. UNDER LUPE, AS INDICATED IN THE TABLE BELOW, 31 PERCENT OF THE MARGINAL FARMERS WILL RECEIVE SOME TYPE OF GRANT TO INITIATE CONSERVATION AND INTENSIVE PRODUCTION ACTIVITIES. THIS IS BECAUSE FARMERS, IN THE IMPORTANT LAND PREPARATION TIME PERIOD PRIOR TO PLANTING, OFTEN MUST SEEK OFF-FARM EMPLOYMENT TO PROVIDE BASIC FAMILY NEEDS. TO HOLD THE FARMER ON THE LAND IN ORDER TO INSTALL CONSERVATION STRUCTURES, SOME ALTERNATIVE MUST BE OFFERED. AS A RESPONSE, LUPE WILL OFFER GRANTS TO COVER THE COST OF INITIATING CONSERVATION PRACTICES ON UP TO ONE-HALF HECTARE OF LAND PER SELECTED BENEFICIARY. IT IS EXPECTED THAT UNDER LUPE SUBSTANTIALLY FEWER FARMERS WILL RECEIVE SUBSIDIES THAN UNDER NRMP. LUPE WILL LIMIT GRANTS TO ONLY KEY FARMERS AND PRORITY COMMUNITY ACTIVITIES.

10. IDENTIFICATION OF CREDIT NEEDS AND STRATEGY

-	CATEGORY 1 MARGINAL FARMERS	CATEGORY 2 SMALL COMMERCIAL FARMERS	CATEGORY 3 SMALL ENTREPRENEURIAL FARMERS	TOTALS
A.NUMBER OF FARMERS - COMPRISING - CATEGORY				
- NATIONWIDE	125-150,000	75-100,000	10,025,000	
PROJECT - PARTICIPANTS	37,500	10,500	2,000	50,000
- PERCENT OF - FARMERS IN - CATEGORY	75	21	4	100
B.NEED FOR GRANT - OR IN KIND - ASSISTANCE AS - INITIAL INCENTIVE	HIGH/MEDIUM	LOW	NONE	
C.CREDIT - REQUIREMENTS				
- NEED FOR - CREDIT	VERY LOW	MEDIUM	HIGH	
- CURRENT				

- ACCESS	NONE	VERY LOW	LOW
D.LUPE - APPROACH	1.GRANTS TO 31 PERCENT (11,625)	1.GRANTS TO 12 PERCENT (1,287)	1.NO GRANTS 2.SMALL LOANS TO 1.6 PER CENT (32)
-	2.SMALL LOANS TO 1.6 PER-CENT (600)	2.SMALL LOANS TO 1.6 PER-CENT (168)	3.SMALL LOANS ACCESS TO EXISTING .INES
-	3.ENCOURAGE GRADUATION TO CATEGORY 2	3.IMPROVE ACCESS TO OTHER CREDIT LINES	
-		4.ENCOURAGE GRADUATION TO CATEGORY 3	

E. NUMBER OF LOANS	600	158	32	800
NUMBER OF GRANTS	11,625	1,287	0	12,912
AVERAGE LOAN SIZE	L2,500	L2,500	L2,500	
AVERAGE GRANT SIZE	L125	L125	-	
TOTAL AMOUNT LOANS	L1,500,000	L420,000	L80,000	L2,000,000
TOTAL AMOUNT GRANTS	L1,453,125	L160,875		L1,614,000

10. THE FINAL MISSION REVIEW OF THE LUPE PROJECT PAPER HAS BEEN HELD AND PROJECT DESIGN COMMITTEE IS PREPARING THE PROJECT PAPER FOR AUTHORIZATION. SINCE THIS WILL BE THE FIRST AUTHORIZATION OF THE FY, MISSION REQUESTS LAC/DR CHECK WITH LAC/CEN THAT FY 89 COUNTRY CHECKLIST HAS BEEN COMPLETED. MISSION WOULD APPRECIATE ANY COMMENTS PRIOR TO JANUARY 11, 1989 AND UNLESS ADVISED OTHERWISE WILL PROCEED WITH PROJECT AUTHORIZATION AND OBLIGATION.
BRIGGS

PT
#2009

NNNN

ACTION: AID-2 INFO: ECON CML/4

VZCZCTG0519 19-JAN-89 TOR: 20:11
OO RUEHTG CN: 02709
DE RUEHC #7443 0192011 CHRG: AID
ZNR UUUUU ZZH DIST: AID
O 192009Z JAN 89 ADD:
FM SECSTATE WASHDC
TO AMEMBASSY TEGUCIGALPA IMMEDIATE 5012
BT
UNCLAS STATE 017443

RECEIVED
USAID/HONDURAS
C&R UNIT
20 JAN 89 11 07

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT:TEGUCIGALPA 22009

SUBJECT: LAND USE AND PRODUCTIVITY ENHANCEMENT PROJECT: (522-0292): CREDIT STRATEGY

1. SUBJECT CREDIT STRATEGY APPEARS CONSISTENT WITH AGENCY POLICY AND MISSION EXPERIENCE, INCLUDING RECENT ANALYSIS OF HONDURAN RURAL FINANCIAL MARKETS.

2. IN MAKING THIS DETERMINATION, LAC/DR NOTED THAT THE CREDIT ACTIVITY HAS BEEN SIGNIFICANTLY REDUCED IN SIZE AND IS NOW A LIMITED EXPANSION OF AN EXISTING CREDIT PROGRAM. THE MISSION NOW PLANS TO ORIENT FARMERS REQUIRING PRODUCTION CREDIT TO EXISTING CREDIT LINES IN PRIVATE BANKS.

3. THE MISSION SHOULD NOTE THAT THE RECENT AGENCY POLICY PAPER, FINANCIAL MARKETS DEVELOPMENT (AUGUST 1988) DISCOURAGES THE USE OF PARASTATAL CREDIT INSTITUTIONS, ALTHOUGH IT DOES NOT PROHIBIT SUCH ACTIVITY. WHILE THE MISSION'S EFFORTS TO SHIFT CREDIT REQUIREMENTS TOWARD EXISTING LINES IN PRIVATE BANKS IS CONSISTENT WITH THIS GUIDANCE, EVERY EFFORT SHOULD BE MADE IN THE FUTURE TO FURTHER INCREASE RELIANCE ON PRIVATE BANK LENDING.

4. LAC/CEN INDICATES THAT THE COUNTRY CHECKLIST IS IN PROCESS AND WILL ADVISE WHEN COMPLETED. SHULTZ
BT
#7443

NNNN

OFFICE	ACTION	INFO
MD		1
DMD		1
RLA		1
EXO		1
EXO/P		
EXO/D		
DP		1
DF	JOF	
CONT		1
RD		
HRD		
HRD/H		
HRD/P		
HRD		
HRD/		
PSP		
EPA		1
E		
RAG		
RHEPO		
CH CM		1
RI		1
O		
C&R		
DUE DATE	01/21	02/09/89
ACTION TAKEN		
ATTACHM		☐
INITIALS		

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INSTITUTIONAL ANALISIS AND IMPLEMENTATION APPROACH

I. Introduction

This analysis describes the organizational structure and implementation approach of the LUPE Project, how the project will fit within the institutional framework of the Ministry of Natural Resources, and the linkages the Project will have with other organizations and projects. In addition, this analysis will discuss the GOH and AID's capacity to provide adequate project management and monitoring.

II. Organizational Structures

A. Ministry of Natural Resources

The Ministry of Natural Resources (MNR) will serve as the lead counterpart institution to implement the LUPE Project. LUPE will be housed within the MNR as a special project, therefore this section will briefly discuss the organizational and functional structure of the MNR.

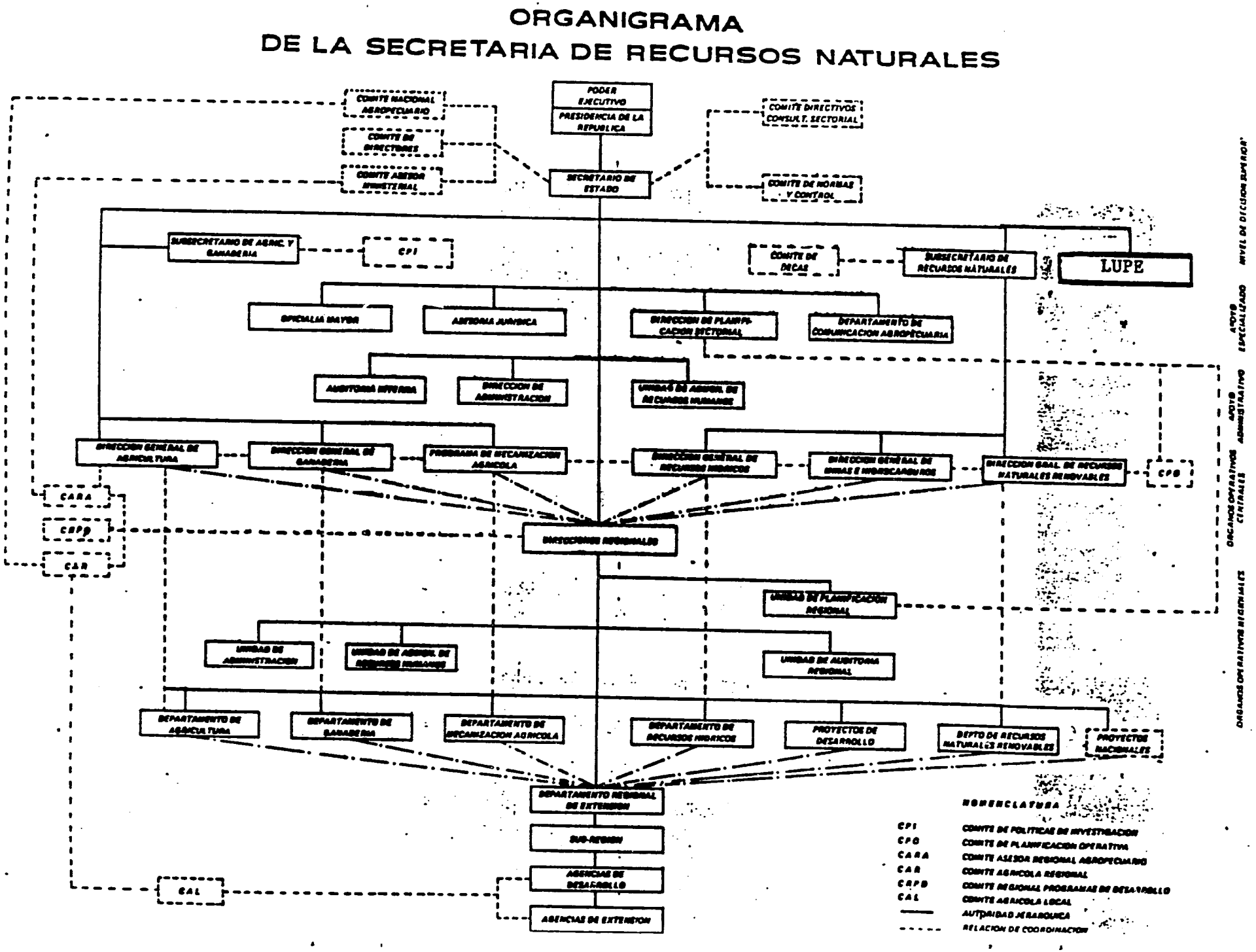
The MNR was created and recreated in various forms through several Decree laws dating back to 1908. Decree No. 41 (March 29, 1983) established the Ministry's organizational and functional structure as it is today and defined its general objectives. These are:

- Increase agricultural production and productivity to satisfy internal market demand and produce surplus for exports;
- Foster basic grains production and agricultural diversification through interinstitutional collaboration, promote agricultural development and strengthen agroindustry;
- Improve and rationalize the uses of human, physical and financial resources to efficiently address the needs of development and the use of natural resources; and
- Promote interinstitutional cooperation with all other institutions involved in the use and protection of natural resources.

The Ministry is charged with implementing and coordinating the agricultural and natural resources sector strategies and policies, as defined in the 1987-90 National Development Plan.

The current organizational structure (see Figure No. 4: Organigram of the Ministry of Natural Resources in PP text), put in place in 1984, comprises five administrative and operational levels. At the highest decision-making level are the Minister of Natural Resources and the two Vice Ministers. One Vice-Minister heads the Sub-secretariat for Agriculture and Livestock. The other heads the Sub-secretariat for Natural Resources. The Minister and the two Vice-Ministers provide direction for the implementation of sector policies and strategies.

FIGURE No.4: ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF NATURAL RESOURCES



Attached to the Minister's Office are the specialized staff and administrative departments. These offices provide staff support to the Minister and to the line divisions of the Ministry, in such areas as project and program planning, design, monitoring and evaluation; preparation of policy and strategy studies; legal counsel; public relations; and development and dissemination of agricultural didactic and informational materials. An administrative department manages internal audits, budgets and financial management, and personnel matters.

At the operational level there exist six general directorates (Agriculture, Livestock, Mechanized Agriculture, Mines and Minerals, Water Resources and Renewable Resources), which administer and coordinate, at the central level, the various programs and projects which the MNR implements. The heads of these six directorates report to the two Vice-Ministers. At the regional level, eleven regional directorates carry-out the MNR's programs and projects in the field. It is at this level that extension services and training activities are delivered to the farmer. Through its eleven regions, the MNR maintains 132 agencies staffed by 318 extensionists. The regional headquarters serve as the highest MNR authority in the field and provide regionalized planning of field activities, research and investigation facilities, guidance and supervision, and personnel and financial management support. In addition, the regional offices coordinate and support special projects, such as the Natural Resources Management Project. Regional directors are under the direct supervision of the Minister.

Overlaid onto this institutional structure, are 15 committees which advise the Ministry and provide broad-based coordination of programs and activities in the sector. Some committees are internal to the Ministry and serve to advise the Minister or coordinate activities within the Ministry, while others provide multi-disciplinary sector coordination and include representatives from BANADESA, COHDEFOR, INA, IHMA, SECPLAN and the Ministry of Finance and Public Credit.

B. LUPE's Organizational Structure

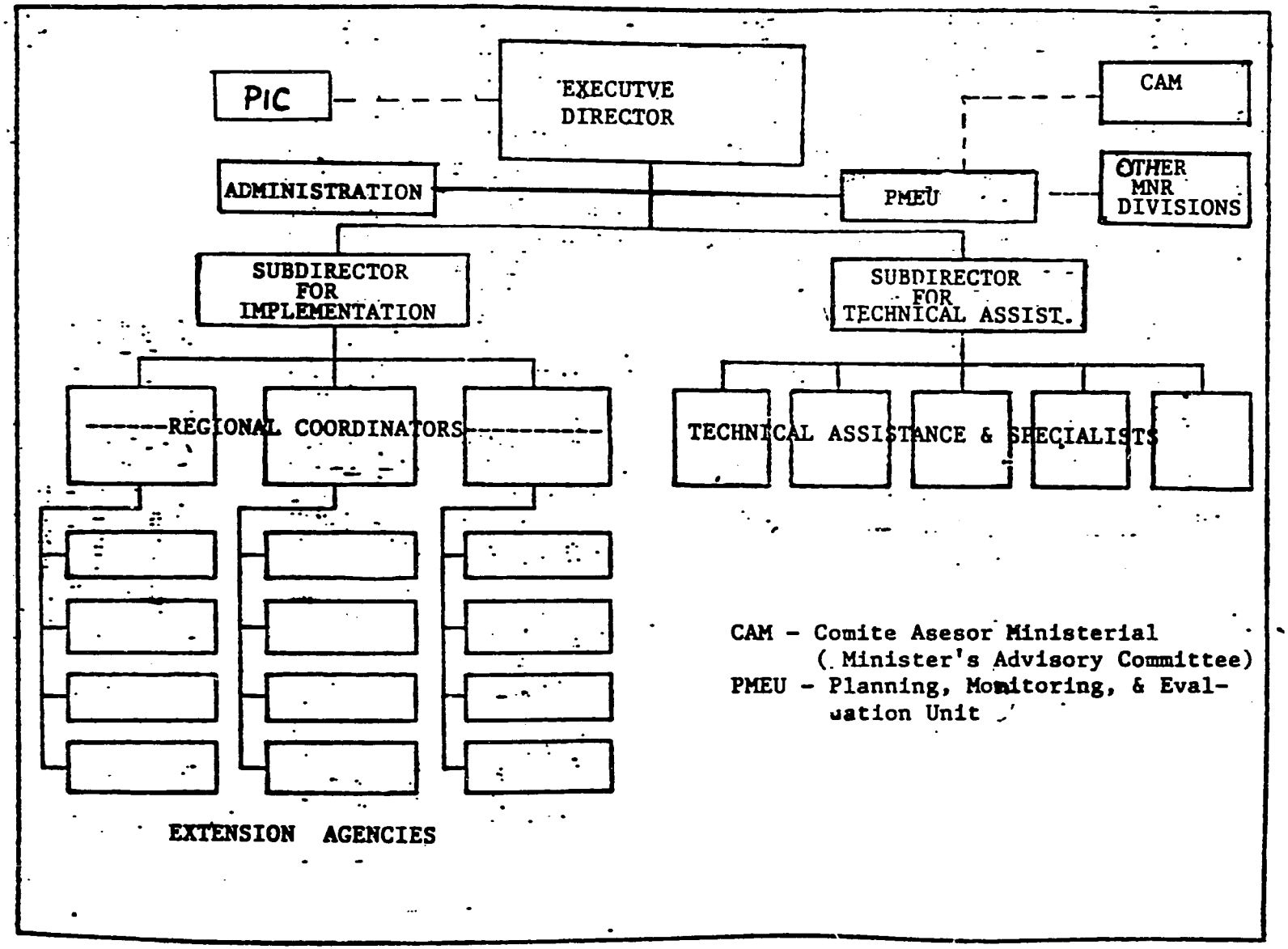
The LUPE Project will be considered as a Special Activity within the MNR's organizational structure. The Executive Director and the Central Office will enjoy equal status with the centralized General Directorates. (See Figure No. 5: LUPE Organizational Scheme in PP text). The Project Executive Director will be directly responsible to the Minister of Natural Resources.

1. Central Office Level

LUPE will consist of a Central Office in Tegucigalpa where a core staff will be built upon selected MNR staff and mode of operations. This office will house the Project Executive Director, Project Administration, the Subdirector for Technical Assistance, the Subdirector for Implementation, and a cadre of central office technical specialists (Honduran nationals and members of the expatriate technical assistance team). The specialists will cover technical areas with relevance to LUPE's extension activities including:

FIGURE No. 5

LUPE ORGANIZATIONAL SCHEME



* watershed management
* agroforestry/forestry
* horticulture/agronomy
* processing/marketing
* extension/training
* pasture/range management
* socioeconomic/environmental monitoring
* information management

The Central Office's primary function will be to support LUPE's regional offices and respective extension agencies with technical assistance and training, managerial and administrative support, and financial and material resources.

A Project Implementation Committee (PIC) will be established to facilitate coordination and communication among the various parties involved in implementing the LUPE Project. The PIC will comprise the LUPE Project Director, who will chair this committee, the Chief of Party of the LUPE TA team, the A.I.D. Project Manager, the A.I.D. Project Liaison Officer, the two Project Subdirectors and the Project Administrator. The PIC will meet on a monthly basis (weekly during the project start-up period). Its principal functions will be to:

- Provide close supervision to project start-up activities
- Ensure timely project implementation
- Define project policies according to specific needs
- Recommend short-term TA needs
- Review and approve NGO extension services and special studies
- Seek adequate inter-institutional cooperation
- Seek cooperation with other MNR divisions and regional offices
- Review annual evaluations, budgets, and operating plans
- Request, support and review external project evaluations

In addition, representatives from the MNR, NGO's or other GOH institutions (i.e. SECPLAN or the Ministry of Finance and Public Credit) may be invited to committee meetings when necessary to discuss areas specific to their work.

The Executive Director will provide overall policy guidance and implementation direction based on LUPE and MNR priorities, and will establish controls for the use of project vehicles and non-expendible property. The Project Administrator will seek to ensure optimal use of project resources. The Subdirector for Technical Assistance will supervise all the project specialists and guide project activities in their respective areas. The Subdirector for Implementation will be in charge of three Regional Supervisors who will supervise all project field activities.

The Project Administrator will work through his counterparts at the regional level to provide logistical support in time, quantity and quality, and will exert fiscal control over project resources.

The national and expatriate specialists at the central office level will determine overall technical orientation of the project by providing training courses, didactic materials and in-service follow-up training and backstopping to their counterparts at the regional level, as well as to extensionists and paratechnicians.

Providing the information data base, and project planning and monitoring support, will be the Project Planning Monitoring and Evaluation Unit (PMEU) which will also be housed in the Central Office and will be directly responsible to the Project's Executive Director. The PMEU will be responsible for implementing the Project Information System, described in Annex J. During project "start-up", the PMEU will be tasked with preparing the Baseline Data System. This system will be a survey of baseline information (socio-economic, geographic, biological, agricultural, environmental, etc.) of the project area and will be used to prioritize watersheds and specific community sites for LUPE interventions. The system will serve as a basis for continuous project monitoring and external evaluations.

Throughout the life of the Project the PMEU will serve as the Project's information center collecting, analyzing and disseminating technical information and project statistics to provide continuous feedback to all levels of project personnel and especially to the field staff. The PMEU will be directly involved in assisting the agencies and regional offices in preparing and carrying out annual evaluations and work planning for the coming year. The PMEU will also serve as coordinator of Project activities with other MNR programs, such as the National Agricultural Research Program, Animal Health Program, Post-Harvest Project, etc., vis-a-vis the Directorate for Sectoral Planning (DPS), as well as other ministries, projects and agencies.

2. Regional Level

LUPE's Central Office will support MNR regional offices with technical assistance, and financial and logistical resources for extension activities on hillsides (i.e. away from valleys) directed at subsistence and small to medium-size commercial farm families. LUPE will not create a new organization at this level, but will seek to streamline MNR operations and make them more efficient in achieving their objectives. At the regional level, there will be three basic organizational units:

* Regional Coordination Units, headed by a Coordinator, will coordinate project activities in the region and include an administrative section which will have budgetary authority, Units will be housed in the MNR's Regional Directorate Offices. One unit will be established for each 6-10 LUPE extension agencies, depending on the size of the watershed being covered.

* The Extension Agencies, will be responsible for carrying out extension and technology transfer activities directed at the target population and will be made up a multip-disciplinary team and a coordinator. Agencies will be provided oversight through the appropriate Regional Coordination Unit.

* The Technical Assistance Unit. Three of these units will be established under the Project. The unit will consist of technical specialists, who provide formal training for extension agents and will select the range of technical interventions to be promoted by the project, ensuring that they are appropriate in terms of both agro-ecologic and socioeconomic criteria. Regional specialists are backstopped by the specialists at the central office level.

Most important about this organizational structure is that all staff activities are oriented toward the work being done by LUPE extensionists and paratechnicians. The head of the regional project administrative section will ensure that project personnel are hired, paid, and provided with logistic support. Each regional coordinator will ensure that national priorities are met in the spirit of the project agreement. Technical Assistance Unit specialists will provide extensionists with needed training and monitor the execution of activities to ensure technical quality. The extensionists and paratechnicians represent the real link to the farmers and their families who participate in activities promoted by the project. They will live in or near the communities where they provide continuous technical assistance to try to meet the needs of local people. It is for this reason that a decentralized, horizontal organizational structure is applied to planning monitoring and evaluation activities--all of which are carried out by the project's extension agencies.

As proposed, LUPE will fit into, not compete with MNR's overall organizational structure, seeking as its first priority, to enhance the Ministry's extension outreach activities to subsistence and small-scale commercial farmers/producers on hillsides. LUPE organizational structure is designed to avoid overly bureaucratic administration and implementation which tend to reduce efficiency and outputs at the target level (small-and-medium-scale farmers/producers). Essentially, the organizational structure is modeled after that employed by NRMP in MNR's Southern and Central Regions, but with alterations necessary to operate a project with a wider range of activities, in a geographically expanded outreach area and involving collaboration and/or contractual arrangements with other organizations such as NGO's and other USAID supported projects. Consequently, LUPE will require creative and efficient administrative mechanisms, additional trained staff and logistic support in order to successfully implement its expanded activities.

NRMP staff and operations will pass over to LUPE immediately upon initiation of this project in order to continue support to the Southern and Central Regions, and their respective extension agencies. LUPE operations will then expand gradually to other regions, providing technical, logistical and financial support as required, through the establishment of new agencies where required.

III. LUPE's Implementation Approach

Under the direction of the PMEU, LUPE will incorporate NRMP's decentralized planning and evaluation approach as described in the manual "Procedimientos para el Manejo de Proyectos de Recursos Naturales" which features extension

agency personnel in the primary planning role with technical orientation provided by the team of central-and regional-office specialists. The steps in the process are briefly detailed below:

* The PMEU collects and synthesizes general baseline information concerning physical resource conditions (current land use, slope, climate, etc.) and existing information concerning socioeconomic factors, farming systems, experiences of current and past development projects and previously-tested and applied technologies.

* An overall project plan and strategy is prepared at the central level, under the direction of the PMEU.

* Specific priority outreach regions/areas are delimited based on criteria including such factors as local need, priority watershed areas in need of restoration/protection, population density and poverty levels, nutrition levels, access and others.

* Priority areas are delimited by extension agency outreach areas (geographical boundaries) and agency headquarters are chosen.

* Field agency staff are recruited, oriented in project philosophy and trained in basic appropriate technologies, decentralized planning and extension techniques by project specialists.

* Extension agency personnel, with assistance from specialist staff perform a "characterization" of their agency's outreach area and target potential communities and groups for participation in project activities.

* Agency-level work plans are prepared by the teams of each extension agency with specialist staff input and guidance.

* Additional specialized training is provided to field personnel by specialist staff based on technologies to be promoted in their particular outreach areas, and technical support materials (field manuals, extension materials, supplies) are developed and made available to them.

* Activities of promotion, demonstration, training, follow-up assistance, etc. are implemented at the community level (see Annex F: Section 2, Extension and Training).

A. Planning and Evaluation at the Extension Agency Level

Because the extension agency and its multidisciplinary team is the real point of contact with LUPE's participant/beneficiaries, the process of planning, control and evaluation will be geared toward them. Generally, the planning process employed by extension agencies consists of a series of steps that begin with the collection of pre-existing biophysical data concerning the agency's work area. These are usually basic topographical maps, information

on climate and soils, and a current land-use map. A single map is produced that overlaps current land use (including vegetative cover) and slope classes. The result is a map of priority work areas that indicates where traditional land use is currently outside the lands's capacity (based on slope) to support that use.

After priority work areas are delineated through mapped information, the next step involves the agency's informative diagnosis or characterization of priority areas. This diagnosis is designed to discover, update or otherwise generate the basic information necessary to make accurate decisions in selecting technologies that are appropriate to local agro-ecologic and socioeconomic conditions, and formulating strategies for transferring those technologies to local populations. These diagnoses are based primarily on literature searches, direct observation during reconnaissance and informal interviews with local people - they are not based on formal surveys. Information collected during this phase includes data on the local population and its vocation(s), land tenure and use, farming and resource-utilizations systems, communal organization, local variations in soils and climatic conditions, and current status of the natural resources base. The diagnosis is intended to characterize each priority community and identify representative farms and resource-utilization systems that can be extrapolated for priority work areas.

With the informative diagnosis completed (this usually involves a series of maps, graphs and organized notes on each priority area and its communities, but more importantly, familarity with the communities and people), the extension agency begins the formation of strategies for each community to be organized or for new farmer groups in the case of communities that are already organized. Certain technical interventions are selected and assigned a percentage ranking according to their importance for each community or group. The more important an intervention is for a community, the greater percentage of time the extension team will spend on it. This phase also includes a preliminary estimation of numerical, physical, and human outreach goals for the community that will be included in the agency's annual work plan.

The annual work plan is then prepared by the extension agency team. The plan is a format comprised of four parts. The first is a listing of strategies for communities and/or farmer groups in the agency's work area, developed in the preceding phase. By aggregating the strategies for all the communities it becomes evident to the team which interventions will take up the majority of their time. The second part of the plan lays out a summary of numerical, physical, and human outreach goals for the principal technical interventions to be promoted in each community or group. It is here that team members can visualize in graphic form where they will be concentrating their efforts. A third part of the plan is scheduling technical assistance for the entire year. The agency's activities are divided by technical focus (e.g. reforestation, livestock and range management, agricultural practices in basic grains, etc.) and a series of sub-activities are described. Each has a unit of measurement that is used to estimate the sub-activity's physical goal (e.g. number of hectares, trees, farm visits, etc.) and human outreach targets (number of farmer participants or beneficiaries) for the year. Sub-activities are then scheduled, indicating the season for realization of each and which team member

has primary responsibility for coordinating the effort. The fourth and last part of the plan is procurement form, designed so that the extension agency team can request all the materials and equipment needed to carry out the work plan. Extension agency teams fill out the format in draft, and these drafts are then circulated in the regional and central project offices for review by the staff of the Technical Assistance Unit and the PIC. The process culminates with a three-day Annual Evaluation and Planning Event, during which the proposed annual work plan for each agency is modified and/or approved, as discussed in detail below.

The extension agency's annual work plan is the cornerstone for implementation of project-related activities. Because of the usual obstacles and unstable nature of this type of project (e.g., funding delays, politics, erratic rains, mid-life crisis, personnel changes), it is important to build in a certain flexibility and at the same time, a mechanism to renew or "recharge" the plan. For this reason, the monthly plan and evaluation was developed under the NRMP and will continue to be used in the LUPE Project. The monthly plan/evaluation is a two in one format that is taken word-for word from the annual work plan's schedule of technical assistance.

On the first day of each month, the agency team consults the annual work plan for the activities that correspond to that month. Where the calendar of activities and month intersect, a monthly goal is set for the sub-activity, which is a portion of the annual goal for that activity. After 30 days of implementation, the agency team returns to the monthly plan on the first day of the following month and evaluates the level and quality of implementation for the activities that were planned. Problems or obstacles to successful implementation are detected and dealt with by the team, its sub-regional supervisor and the TA Unit after a review of the monthly evaluation.

After the preceding months's activities have been evaluated, the team fills out a new plan for the coming 30 days, and the cycle repeats. It is important to point out that no annual work plan can remain accurate and true to date throughout the year. Activities that are not implemented during the month planned can be carried over the next or otherwise revised on the next month's work plan. The process provides a cyclical mechanism whereby the extension agency's activities are tied closely to its annual work plan, yet subdivides the plan into a more manageable time-frame. At the same time, the process facilitates ongoing assessment of the agency's progress, indicating problems or weak areas, yet permitting replanning of numerical goals according to the real capabilities of agency personnel and varying biophysical and socio-political conditions that affect implementation.

Just as the monthly plan has a monthly evaluation, so the year should terminate with an annual evaluation. The Annual Evaluation and Planning Event is held in the last month of the planned year (in the case of LUPE, at the end of the calendar year) and is intended as an analysis of the project's methodology of execution and a feedback process in which all participating personnel (PIC, PMEU staff, central office specialists, and extension agency

staff) can share in the experiences of the year, good and bad. Among other things, the annual project evaluation includes:

* A comparison of the year's annual work plan (in terms of orientation, strategy and goals) to recorded achievements;

* presentation and discussion of case studies for technical assistance experiences specific to each principal technical component, to analyze corresponding successes and failures;

* analysis of the adaptability and acceptability of each intervention, from the perspectives of farmer beneficiaries and extensionists;

* identification and discussion of political, managerial, administrative and logistical obstacles that inhibit the timely provision of quality technical assistance to the target population;

* identification of technical "voids" and needs for training so that extensionists can be better prepared to transfer appropriate technology; and

* technical, administrative and managerial recommendations leading to a more efficient and successful operational methodology for the project in the coming year.

In general, the annual evaluation is an event that is prepared in advance by circulating questionnaires to the extension agencies which cover all the aspects just mentioned. Answers from these questionnaires are consolidated and presented in a plenary session together with an analysis by the TA Unit of each agency's successes and failures, during the annual evaluation meeting, thus providing a basis for the evaluation. The results are discussed and a consensus formed concerning the project's more pertinent technical and managerial aspects. This consensus is then carried over into the annual planning process for the coming year to consider the results of the evaluation for the preceding year. Thus, the annual evaluation is the prelude to annual planning for the coming year, and both processes are covered during the same three-day meeting during the last month of the year. The annual evaluation and planning meeting, like the monthly planning and evaluation process, is cyclical and provides a continuum for the project from year to year.

B. Project Impact Monitoring

The monthly planning and evaluation process is used to gauge the progress and efficiency of the extension agency teams in providing technical assistance to the target population. It is a mechanism for assessing the validity of the vehicle for technology transfer, not the technology itself. However, it is also of importance to assess the validity and efficiency of the technical intervention being transfered.

There are technical and economic questions that all farmers will eventually answer when they try the technical interventions on their own farms. It is best to know the production potential of the interventions before and during

the life of the project at least in relative terms. For this reason the Project Information System has been developed (see Annex J). This system is a framework for gathering the minimum information needed for monitoring selected interventions to better understand and calculate their efficiency, outputs, applicability and cost/benefit ratio of project activities.

Extension agency personnel will decide which techniques need to be monitored. They then select a sample of all the farms where a given technique is practiced. For each selected farm, a monitoring form is filled out. It consists of:

* a copy of the agency's general topographic map showing the farm's location;

* sketch of the farm's layout before the intervention, depicting land use and annotated legend detailing aspects of resource use, production systems, local soil and climatic factors, socio-economic, and other relevant environmental data.

* space for sketching the technical interventions as they are implemented, using the same scale as for the sketch of the current situation; and

* one or more data sheets, each for monitoring a particular series of interventions, such as reforestation and forest utilization, planting and management of improved pasture, agronomic measures for cultivating basic grains, etc.

The monitoring form is continually updated and used as the basis for closely following the application of selected technical interventions through planting and harvest cycles or each step of resource management and utilization. Inputs and outputs are calculated with the participation of both farmer and extension agent. Information from these monitoring forms is periodically synthesized by the agency and used to evaluate the validity of the interventions and their socio-economic impacts. Results are then extrapolated for all farmers practicing the techniques, and output of project activities for the agency's entire outreach area is calculated. The PMEU will then synthesize these data for the entire project area, and prepare an analysis which is distributed to field agencies to incorporate into their activities.

C. Project Staffing and Administrative Needs

1. GOH Staff

LUPE's phased expansion into a maximum of three additional MNR Regions and an additional 60 extension agencies will require absorbing or hiring more administrative, technical and extension staff. The staffing patterns to be required under LUPE are presented in table 3: Projected GOH Personnel needs for LUPE (Section III D.1, of the Project Paper) below, including the year of incorporation of additional members by category.

TABLE 3. PROJECTED GOH LOP PERSONNEL NEEDS FOR LUPE, BY YEAR, EXPRESSED IN PERSON/YEAR

	YEAR							
	1	2	3	4	5	6	7	8
DIRECTOR	1	1	1	1	1	1	1	1
Administrative Officer	1	1	1	1	1	1	1	1
Clerical, Admin. Asst.	6	7	8	8	8	8	8	8
Secreterial	12	14	15	16	18	18	18	18
Mechanicanics/Motor Pool/Maintenance	8	12	12	12	12	12	12	12
Support Staff	24	30	32	34	36	38	38	38
Sub-Director/Extension	1	1	1	1	1	1	1	1
Regional Supervisors	3	3	3	3	3	3	3	3
Area Coordinators	5	7	9	10	10	10	10	10
Extensionists/Technical	96	120	120	130	150	160	160	160
Paratechnicians	32	40	80	110	130	160	160	160
Contact Farmers	32	40	50	60	70	80	80	80
Sub-Director/Technical Assistance	1	1	1	1	1	1	1	1
Specialists:								
Agronomy/Hillside Agriculture	2	3	4	4	4	4	4	4
Horticulture/Vegetables	1	1	1	1	2	2	2	2
Fruit Production	1	1	1	1	2	2	2	2
Home Economics	1	2	2	3	3	3	3	3
Range Mgmt/Agroforestry	2	2	2	3	3	4	4	4
Animal Health	1	2	2	2	2	2	2	2
Forest Mgmt/Agro-forestry	1	2	3	3	3	3	3	3
Small Enterprises/Agri-Bus.	1	1	1	1	2	2	2	2
Extension Methods/Training	1	2	2	2	3	3	3	3
Agricultural Marketing	1	2	2	2	3	3	3	3
Small Animal Production(Rabbits, Poultry,Fish)	1	2	2	2	2	2	3	3
Water Management/On-farm	1	3	3	3	3	3	3	3
Post Harvest	1	2	3	3	3	3	3	3
Agricultural Credit	1	2	3	3	3	3	3	3
Environmental Science/Monitoring	1	1	1	1	1	1	1	1
Environmental Education	1	1	1	1	1	1	1	1
Pesticide Management	1	1	1	1	1	1	1	1
*Chief/Planning, Monitoring, Evaluation(Ag.Econ)	1	1	1	1	1	1	1	1
Planning Specialist/Agronomy	1	1	1	1	1	1	1	1
Planning Specialist/Forestry	1	1	1	1	1	1	1	1
Planning Specialist/Livestock	1	1	1	1	1	1	1	1
Planning Specialist/Administration	1	1	1	1	1	1	1	1
Secretary	1	1	1	1	1	1	1	1
Sub-Region Technicians	1	2	3	3	3	3	3	3
Information Specialists	-	4	5	6	7	8	8	8
Total Staff	248	320	383	439	500	553	553	553

*The Personnel Costs for the Planning, Monitoring, and Evaluation, Unit (PMEU) are not included in t budget line item for extension services, but are covered separately in the line for the PMEU.

NOTE: Contact farmers are unpaid. Hence actual payroll numbers should be reduced by that number

The calculation of personnel needs are based on the average number of staff members found in extension agencies and regional offices and should be considered conservative (i.e. the minimum number required) considering outreach goals proposed under LUPE.

Most of the staff at the start of LUPE will be recruited from personnel already employed under NRMP. New staff will be recruited and/or proposed by MNR as expansion occurs. USAID will approve (through a Project Implementation Letter) the final selection of staff hired, especially at directorate, administrative and technical specialists levels.

Contracts for personnel under LUPE should be made for a minimum of 2 years in order to avoid constant turnover of personnel and the bureaucratic delays of yearly contracts. The turnover of personnel has been cited as the principal obstacle to the success of outreach extension projects in Honduras (e.g. NRMP, RTP). Regardless of their level, all staff must be trained for the jobs they are expected to perform. Terms of reference will be used for the hiring of all technical personnel.

2. Expatriate Technical Assistance

A private contractor should be selected and hired through a competitive bidding process to provide long and short term technical assistance (TA) for LUPE. The TA team will arrive at the beginning of LUPE implementation - especially in light of the project's immediate start-up with the absorption of NRMP. Long term TA team will be required for a term of up to six years in the areas of hillside agricultural technologies and agricultural extension.

An additional 45 person months of short-term technical assistance will be required in the areas of women in development, agroforestry, pesticide management, silvopastoral management, horticulture, post-harvest activities, and others.

Based on successful experiences under NRMP and RTP, Peace Corps volunteers will be used throughout LUPE implementation. Volunteers will be recruited and appropriately placed on the staff throughout the LOP.

IV. Linkages with Other Organizations

LUPE is one of several USAID efforts to increase the productivity and the value of the agricultural base of Honduras. The Irrigation Development and Small Farm Livestock Projects, and related efforts in agricultural research with the Fundación Hondureña de Investigación Agrícola (FHIA), Federación de Productores y Exportadores Agropecuarios y Agroindustriales de Honduras (FEPROEXAAH) and several smaller-scale initiatives at the Escuela Agrícola Panamericana (Integrated Pest Managment/MIPH and the Sorghum-Millet and Bean-Cowpea CRSP's) are all directed toward this goal.

A "buy-in" to the AID/W Centrally funded, Communication for Technology Transfer Project (CTTA) has begun efforts to improve mass media communications (i.e., radio, leaflets, etc.) and USAID's support for AVANCE's "El Agricultor" newspaper are geared to the transfer of technical information to farmers. MNR's Unidad de Desarrollo y Adaptación (UDA) develops agricultural technology prototypes which have been tested and disseminated by PTR. The National Cadastre Program has long been funded by USAID and has developed the capability for preparing physical resource maps (soil, land use, slope, etc.). Other organizations and projects with Mission support (i.e., Rural Roads, Small Business Development Project, IHCAFE, COHDEFOR, Health Sector II) carry out activities with similar development orientation.

Various smaller-scale development activities with private voluntary organizations (PVOs), such as Compañeros de las Americas and Asociación Hondureña de Ecología (AHE), have had positive impact in areas related to appropriate resource development in Honduras.

LUPE will seek collaboration from and interaction with many of these organizations and projects, in much the same way as RTP has in the past, in order to achieve common objectives in the project area (i.e., enhancement of land use productivity). While most of these collaborations will be voluntary, there will be a need for formal contractual arrangements to procure special services needed by LUPE (such as training seminars, laboratory analyses, studies, tool/technology development). In some special cases PVO will be contracted to develop LUPE activities in areas where MNR either has limited jurisdiction or lacks outreach ability.

Certain specific activities require technical capabilities that are currently outside of MNR's (or NRMP's) outreach orientation. Such activities include: integrated pest management, soils laboratory analyses, selected rural agricultural and natural resources processing technologies, development of rural enterprises and credit facilitation services. LUPE's organizational structure will allow for mechanisms whereby other institutions will be contracted to provide site-and product-specific goods and services. LUPE extensionists will, as part of their "characterizations" of communities identify specific priority problems some of which will be outside MNR/LUPE's technical or geographical jurisdiction. Specific needs of communities, as transcribed by LUPE staff, will be transmitted from the extension-agency level up to regional offices, and then to the central office. These needs will be analyzed by central office specialists and, should they not be able to respond to them personally or through collaboration with other institutions or organizations, will request that another organization be contracted to respond to the specific need. The PIC will than review the request. If approved, the Project Administrator will solicit proposals for the services to be contracted. Proposals will be reviewed by the Project's Central Office (PIC) and by the Regional Office and/or extension agency requesting the services. Approval of the contract, funding reservations and disbursements will be made through Project Implementation Letters issued by USAID.

The following institutions have been recognized as having special capabilities which can be used by LUPE through this contract mechanism on an as-needed basis.

A. Banco Nacional de Desarrollo Agrícola (BANADESA)

BANADESA, a wholly owned government bank, is the single most important lender to agriculture, and the principal vehicle for reaching the small farmer population. Over three-fourths of BANADESA loans are to the agricultural sector. Of those the majority (58%) go to grain producers, most of whom are small farmers.

In 1982, under the NRMP, a fiduciary account was established in BANADESA to provide small loans and grants to NRMP participants in watershed management activities. Farm plans developed by field extensionists and the participating farmers, among other things, identify specific conservation activities to be carried out with the assistance of a loan or subsidy. The loans finance activities such as soil and water conservation practices, basic grain and diversified crop production, and livestock improvement activities. Grants are used to initiate soil and water conservation practices, (the grant only covers a small portion of the beneficiary's land), to establish community nurseries, to assist WID home improvement projects, lots for fuelwood, lots for pasture grass, community forests which protect water sources, and agroforestry practices. To date, over 200 loans have been given to marginal farmers under the Natural Resources Project. The interest rate to the borrower has varied between 13% and 16%. The rate of loan default is 8%, which is substantially lower than similar agricultural credit lines. The success of this small line has been due to good administrative support provided by BANADESA, as well as to the technical assistance, follow-up and supervision given to the recipient by NRMP extensionists and technicians.

BANADESA administers the credit/grant fiduciary account for the project and makes the final loan approvals. A quarterly report of the status of the account is sent to the Project Office and the Ministry of Finance and Public Credit.

Based on this positive experience, LUPE will continue to use and expand this credit mechanism for the small subsistence farmers. The existing fiduciary agreement will be modified to include an additional $1,500,000 to broaden the line's capability to cover a larger beneficiary group as well as to expand to uses of the line to include post harvest activities and small rural enterprises. Under LUPE, subsidies will be in-kind (tools, fertilizers, materials) and will be given to approximately one third of the target population (50,000 farm families). Subsidies will also be given for activities which have a wider community based purpose, (e.g. demonstration plots, community nurseries, etc.), in addition to individual farmers to initiate changes in agricultural practices.

B. Rural Technologies Project (RTP)

Based on RTP's experience to date, the following RTP services could be contracted by LUPE:

1. Extension agency/community-level assessment to detect potentials for development of appropriate agricultural natural resource processing technologies. RTP could conduct community-level assessment to identify and describe appropriate rural agricultural/natural resource processing technologies designed to enhance the use of and add value to raw products. LUPE extensionists will, as part of their "characterizations of communities" exercise in each agency, identify raw materials with potential for transformation and processing. Tentative priority areas will then be chosen for further study based on ranking criteria to be developed by LUPE technical specialists. RTP can then be contracted to dispatch personnel to do an assessment of the availability (quality and quantity) of raw materials and potentials for their processing. Profiles could be prepared by RTP on the technologies to be employed, including information on technical specifications (plans), investment profiles, material/equipment needs, potential and firms market, credit sources, and participant training requirements. Examples of potential raw products/materials to be considered include: vegetables, flowers, spices and other agricultural crops, fish, dairy, forests (wood), and by-products and residues, of the same.

2. Development of rural enterprises. Depending on the results of the extension agency/community-level assessments, certain processing technologies may be conducive to more formal entrepreneurial development. In these cases, RTP could be contracted to assist project participants in appropriate-scale rural enterprise development. These services would be carried out in the form of training courses in selected processing technologies and enterprises management.

3. Credit facilitation with private banks. RTP could be contracted to deliver training courses to LUPE extensionist and selected project participants in procedures for application and management of credit with private banks. Development of some rural processing technologies and rural enterprises will require financial resources out of the reach of many project participants - thus necessitating credit (emphasis on private banks). RTP personnel can deliver courses in procedures for credit application, development of investment, profiles, cash-flow analysis and fiscal management.

C. Communication for the Transfer of Agricultural Technology

The project could contract limited media development services (primarily radio) that could be brought into direct use by LUPE staff.

D. Development and Adaptation Unit (UDA)/MNR

UDA has provided appropriate technology research services for MNR and RTP. There is still a good deal to be done in developing rural-based agricultural and natural resources processing technology which could directly benefit LUPE participants. LUPE extensionists will detect certain technology needs during their characterizations or RTP may turn up a series of needs or pilot projects during contract work. LUPE could then contract UDA on a product-by-product or a limited-scope, specific timeframe contract to develop prototypes which could

then be field tested by LUPE participants with observation and feedback coming to UDA from LUPE extensionists.

E. Honduran Foundation for Agricultural Research (FHIA)

FHIA's extensive laboratory in La Lima represents a great enhancement in analytical services available to LUPE. Such services as plant tissue analysis (nutrient, toxicity), soils and water quality analyzes can be used by LUPE in its environmental monitoring program. Contracts could be let on a sample-by-sample basis with a guaranteed minimum. FHIA could also be used to provide specific research services, training and technical assistance in integrated pest management, nursery development and seed multiplication.

F. Panamerican Agricultural School (EAP)

EAP is gradually improving as an eductional and research institution. The schools experience in sorghum, millet, beans and cowpea research and especially in integrated pest managment can result in technical assistance that could be invaluable to LUPE's efforts. EAP could be contracted to train LUPE extensionists in integrated pest managment and research design, as well as provide long-term training in different agricultural fields as part of the school's new four-year program in rural development.

G. Honduran Ecological Association (AHE)

AHE has been increasingly involved with environmental education and the conservation and management of wildlands and hydrological reserves. LUPE could contract AHE to do assessments and management plans for selected reserve areas as part of LUPE's emphasis on buffer zone management. AHE could also be used to develop environmental education modules and deliver them (training) to LUPE extensionists and/or local communities/schools. The environmental education activities could be jointly financed with the Forestry Development Project (522-0246) which has a similar environmental education compoent.

H. National Cadastre Program (PCN)

PCN could be contracted to produce (or reproduce) needed physical resource maps of LUPE's project area; including maps of climate, slope, ecological zones, temperature and actual land use. The information would be used by LUPE in the selection of priority work areas and in the selection of appropriate technical packages based on local conditions.

I. Linkage with Other NGOs

As mentioned early in this Annex, the Project will make extensive use of NGO's, on a contractual basis to: a) carry out the Project extension program in specific geographic areas which will be selected when priority watersheds are delineated; and b) to provide training, support services, special studies, etc., according to directed needs of the project. NGO's will be selected by an open competition process, in which the Project will solicit proposals for the specific task, review the NGOs submittals, and select the best proposal which will then be contracted using Host-Country contracting procedures.

During the design of the LUPE project, the design team screened and interviewed over forty NGOs working in Honduras and the following is a decription of the NGOs with most potential for providing services to the Project.

Compañeros de las Americas en Honduras (Partners of the Americas), has been implementing a very successful integrated rural development program in Sabanagrande, Honduras for the past several years. The program is being carried out in coordination with the NRMP and includes hillside conservation and agricultural practices, animal production, technical training, home economics, and small agro-enterprise development. Partners uses a system of local (resident) promoters and extensionists for field implementation. The Sabanagrande program is one of several activities Partners is currently implementing in Honduras. Partners has legal status and is a registered PVO in Honduras. The organization is managed by a Board of Directors.

Proyecto Aldea Global (Global Village Project), has been implementing privately financed self-help development projects in the Yure River Basin and southwest Honduras for the past seven years. This PVOs has experience in agricultural credit, integrated hillside agriculture, technical training, crop diversification, home economics and community development. The Gobal Village Project (GVP) uses project-trained community based promoters to carry out its activities. The GVP is a registered Honduran PVO and has legal status. It is manage by a Board of Directors and has adequate potential for counterpart funding.

Centro de Adistramiento de Recursos Humanos de Honduras (CADERH) (Center for Human Resources Development), currently is implementing a USAID financed program in southern Francisco Morazán (Guinope, Honduras) working in integrated rural development, technical and practical training, conservation and hillside agriculture, development of small rural enterprises and community development. CADERH has several projects it is implementing, each with its own funding source. CADERH has legal status, is managed by a Board of Directors, and has a dollar account in the U.S.

Fomento Evangélico para el Desarrollo de Honduras (FEPROH) (Evangelical Movement for the Development of Honduras), implements privately financed individual and small scale projects in central and southern Honduras. Their principal activities include soil conservation and hillside agricultural practices, developmet of small rural enterprises, agricultural credit, and construction of potable water systems. FEPROH is a registered Honduran PVO and has legal status. It is managed by a Board of Directors.

Instituto Hondureño de Bienestar Rural (IHBIER) (Honduran Institute of Rural Welfare), is a registered Honduran PVO, with legal status, which has been implementing small scale projects in the departments of Francisco Morazan and El Paraíso, in the areas of hillside conservation and agriculture, animal production, development of small rural enterprises, technical training, agricultural credit, home economics and appropriate technologies. The INHBIER is managed by a Board of Directors.

Comite Evangélico de Emergencia Nacional (CEDEN) (Evangelical Committe for National Emergencies), has been implementing USAID financed small scale projects in central and southern Honduras. It's particular strengths and expertise are in the areas of hillside agriculture and conservation practices, technical training, agricultural credit, appropriate technologies and nutrition. CEDEN is a register Honduran PVO, it has legal status, and is managed by a Board of Director.

Mujeres Solidarias para el Desarrollo (Solidarity for Women in Development), is a Honduran PVO, currently in the final stages of obtaining its legal status. The PCO has experience in the areas of rural family training, group organization, hillside agriculture and home economics. The PVO is managed by an Executive Committee arrangement.

Asociación Hondureña para el Desarrollo de la Juventud y Mujer Rural (AHDEJUMUR), (Honduran Asociation for the Development of Youth and Rural Women), has been implementing USAID financed small-scale projects in northern Honduras; principal activities include conservationist hillside agriculture, animal production, appropriate technologies, and small agro-enterprises. AHDEJUMUR is a registered Honduran PVO and has legal status. It is managed by a Board of Directors.

V. Linkage with Other AID-Funded Projects

LUPE will look to collaboration with institutions on a shared-cost, mutual interest basis. Activities with mutual benefit to LUPE and a collaborating project will be developed through inter-institutional (project) agreements. The types of collaboration are illustrated in the following examples:

* Design and development of small-scale irrigation and water catchment projects with the Irrigation Development Project (522-0268) (PRORIEGO). LUPE beneficiaries who have potential economically viable diversification projects which require irrigation, will be referred to PRORIEGO for financing and technical assistance.

* Improved forest utilization, management and protection with COHDEFOR (Forestry Development Project 522-0214) in the LUPE project areas.

* Improved marketing information systems with FEPROEXAAH. (Export Development and Services 522-0207).

* Small-business management training and credit facilitation with the Small Business Development II Project (522-0241).

* Regional and national hillside agriculture and land-use management seminars with insitutions such as CATIE in Honduras.

VI. Institutional Capability of the Organizations Involved in the Project

A. The Ministry of Natural Resources

The MNR will be the lead counterpart agency implementing the LUPE Project. It was decided that LUPE be housed in the MNR because the MNR is the primary governmental institution responsible for the development and management of natural resources. It is widely recognized that the MNR has a limited human resource base, relatively weak institutional structure and that often there is little coordination among the various sectors within the Ministry. The MNR extension service is inadequately staffed and trained to take on the additional functions required of an integrated team approach, as the one proposed under LUPE.

It is for these reasons that the Project Design Committee decided to continue with the Project structure as developed under the NRMP. The Project Office will be a semi-autonomous organization, administratively attached to the MNR. The Project through its Executive Director will be directly responsible to the Minister, thus assigning the Project high priority within the Ministry. The Project office will be delegated authority from the MNR for funds management, contracting and general project implementation functions. It will contract and supervise its own staff.

The experience with this administrative arrangement under the NRMP has been very good. The NRMP central office has been able to be more flexible and responsive to needs in the field because it operates under its own administrative structure. Such items as per diem, vehicle maintenance, purchase of supplies and materials, and special services are able to be processed in relatively short periods of time because the Project does not enter into the highly centralized and bureaucratic administrative system of the MNR.

Crucial to the success of LUPE will be the selection of experienced and well-trained individuals in key project management positions. A.I.D. will review selection criteria for central office positions submitted by MNR and will confirm the approval of the individuals through Project Implementation Letters.

B. BANADESA

As mentioned earlier, the credit program with BANADESA has been very successful. Under the NRMP, credit supervision and follow-up have been provided by the project extensionists. It is the intension of LUPE to continue this mechanism, using the same administrative procedure developed under the NRMP.

BANADESA now has four years of experience working with the Project. The BANADESA staff that handles the fiduciary account is experienced and capable of handling additional funds. The Project Design Committee does not forsee any problems with the administration of the fiduciary account.

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INTEGRATED HILLSIDE AGRICULTURE AND RESOURCE MANAGEMENT

I. INTRODUCTION

Hillside agricultural production and related land protection issues have received increasing emphasis in resource management efforts, especially in context of integrated watershed management. Such efforts recognize the need to address the destruction of upland natural resources not only because of negative effects on local ecological systems and productive capacity, but also because of downstream effects. The outflow of non-point source pollution from upper watershed areas in the form of sediments and chemicals contaminants and flash flooding can be especially detrimental to downstream inhabitants and many coastal biological resources important to economic development.

The achievements of NRMP, PTR and various PVOs have provided a base for developing more integrated management systems. Such integration will have an economic dimension by bringing hillside agriculture more fully into the national economy through enhancing the productivity of traditional systems, and encouraging diversification into higher value markctable crops. The integration will also have an environmental dimension in which proposed changes in upland land use practices will be viewed in the context of their effect on the productive capacity and protection of the entire watershed system, including the coastal zone.

Watersheds are continually being damaged by inappropriate hillside agricultural practices at an increasing rate . Although traditional forms of shifting agriculture may be ecologically sound in areas where 7 to 10 year fallows are possible, increased population pressures on land has shortened the length of rotations used to maintain soil fertility. Without alterations to traditional slash and burn techniques, site degradation rapidly occurs in these areas, leading to a downward cycle of decreasing productivity. Many farmers are now clearing steep forested lands and using farming techniques which do not provide adequate protection against soil erosion. These plus illegal and/or poorly managed forest exploitation are leads to rapid resource destruction in many upland watersheds.

The NRMP has had success in organizing a rational approach to modify traditional hillside farming practices. The technical approach used by the NRMP is basically sound and has been well received in field applications. The soil conservation manual (Manual Práctico de Conservación de Suelos) is well done and provides a good technical base for future activities in this

area. The strategies and applications defined in the manual will continue to be applied under LUPE. This approach has included the following soil conservation elements:

- the change of traditional slash and burn techniques to a slash and mulch approach in which organic matter is incorporated back into the soil rather than being destroyed by traditional burning;

- the application of soil conservation techniques to hillside areas to prevent soil loss and to maintain nutrients needed for long-term productivity. This includes the use of contour cultivation, absorption ditches, individual terraces, narrow-based terraces (asequias), live (green) and dead (slash) barriers, bench terraces, grassed water ways, and drainage canals;

- simple animal hygiene methods to reduce animal diseases and decrease mortality;

- the planting of cut grasses and improved pastures in order to increase forage/feed production per unit area for livestock;

- rustic natural forest management techniques such as selective cutting, thinning and fire prevention, in order to produce sustained yields of wood and provide for watershed protection;

- the use of minimum tillage techniques and green manuring to reduce the exposure of soils to rainfall impact and sheet erosion while increasing the overall fertility of the site;

- the promotion of home and communal gardens and fruit production as a means to improve nutrition, provide for land use diversification, and where feasible, provide products for market.

II. OBJECTIVES RELATED TO IMPROVED LAND USE

The basic objective of project activities related to hillside agriculture and resource management is to educate rural families through and effective locally oriented extension system that will transfer skills needed to improve local farming technologies, sustain natural resources, and increase income and family well-being. Related to this is the goal to increase the long-term productivity of hill lands through the application of conservation practices and appropriate productivity enhancing agronomic practices. Underlying objectives include:

- Stabilizing shifting cultivation cycles and increasing the per-land-unit production capacity of traditional agricultural crops and pasture, thereby opening land areas for other uses including: diversified and/or marketable crop production, permanent tree crops, reforestation and watershed regeneration;

- Increase the income, nutrition and well-being of up to 50,000 rural families as a result of program activities;

- Protect downstream areas by increasing water infiltration, and decreasing the outflow of sediment and contamination through the use of soil conservation and a more controlled use of agricultural chemicals via integrated pest management systems;

- Protect upland water sources through forest protection and reforestation, and through increased use of agroforestry systems.

III. RATIONALE AND FOCUS

A general hypothesis in the LUPE project design is that farmers will increase production of basic grains from a given site sufficient to meet subsistence needs and produce surpluses for sale; and by stabilizing production on that site via improved practices, many farmers will be able to convert other lands to other uses. This will be the case where farmers traditionally have rotated their basic grain production across several different sites, leaving a part of land in fallow. In such cases, with more productive and stabilized basic grains production, farmers can then devote more land to production of cash crops, permanent crops, woodlots, silvopasture and regenerated forests. For success, this will require increased emphasis on land-use diversification and product processing, transformation and commercialization. Activities will be oriented towards marginal small farmers and small-to medium-scale commercial farmers (see section on Processing and Marketing).

A review of the various components of NRMP related to hillside agriculture shows that by introducing a mix of appropriate technologies into traditional farming systems, significant increases in productivity can result. The units that make up these technology "packages" (e.g. soil conservation structures, judicious of organic and chemical fertilizers, improved plant spacing techniques and improved agronomic practices) are based on local needs, with the units combined to provide an incentive to participate while maximizing potential return from a given site. In areas using these technology packages, approximations of increased bean and maize production ranged between 50% and 250% depending on the packages used and rainfall conditions. A better system for monitoring results in terms of yields, reduced erosion, changed land use patterns, etc. will be defined and implemented early as a priority of LUPE, making it possible to more accurately measure the actual changes in productivity occurring due to project activities (see Section on Planning, Monitoring, Evaluation and Reporting).

The actual technology packages under LUPE will place emphasis on the gradual introduction of appropriate technologies to improve traditional farming system productivity, but with crop and land-use diversification as an underlying goal. In actual field applications, strengthening in the following areas will occur under LUPE to make widespread transfer more efficient and self-sustaining (see Figure 1):

- more effort will be directed at the development and use of protective vegetation systems to complement or, in some cases, replace the strategy of using physical

structures. This will include increased use of live barriers, hedgerows and green manure cover crops. There will be expansion or incorporation of strip/contour farming, alley cropping and agroforestry management systems as a means to provide greater site protection and to diversify on-farm production;

- intensify the planting and utilization of cut-and-carry pasture/forage systems and animal containment as a means to reduce overgrazing and facilitate the collection and utilization of manures as organic fertilizer;

- pursue an integrated pest management (IPM) strategy using enhanced land-use techniques (e.g. multilayered, strip, rotation and alley cropping), non-viral biological controls, and where necessary, controlled chemical usage. Local training in IPM systems will be emphasized;

- increased emphasis on small-scale, on-farm water management systems including rustic water catchments, cisterns and small irrigation systems;

- more emphasis will be placed on selection and proper maintenance of soil conservation sites. Under the NRMP the incentive programs served as the motivator for many small farmers to participate. However, over use has caused a dependence on incentives, and maintenance problems have arisen with some farmers;

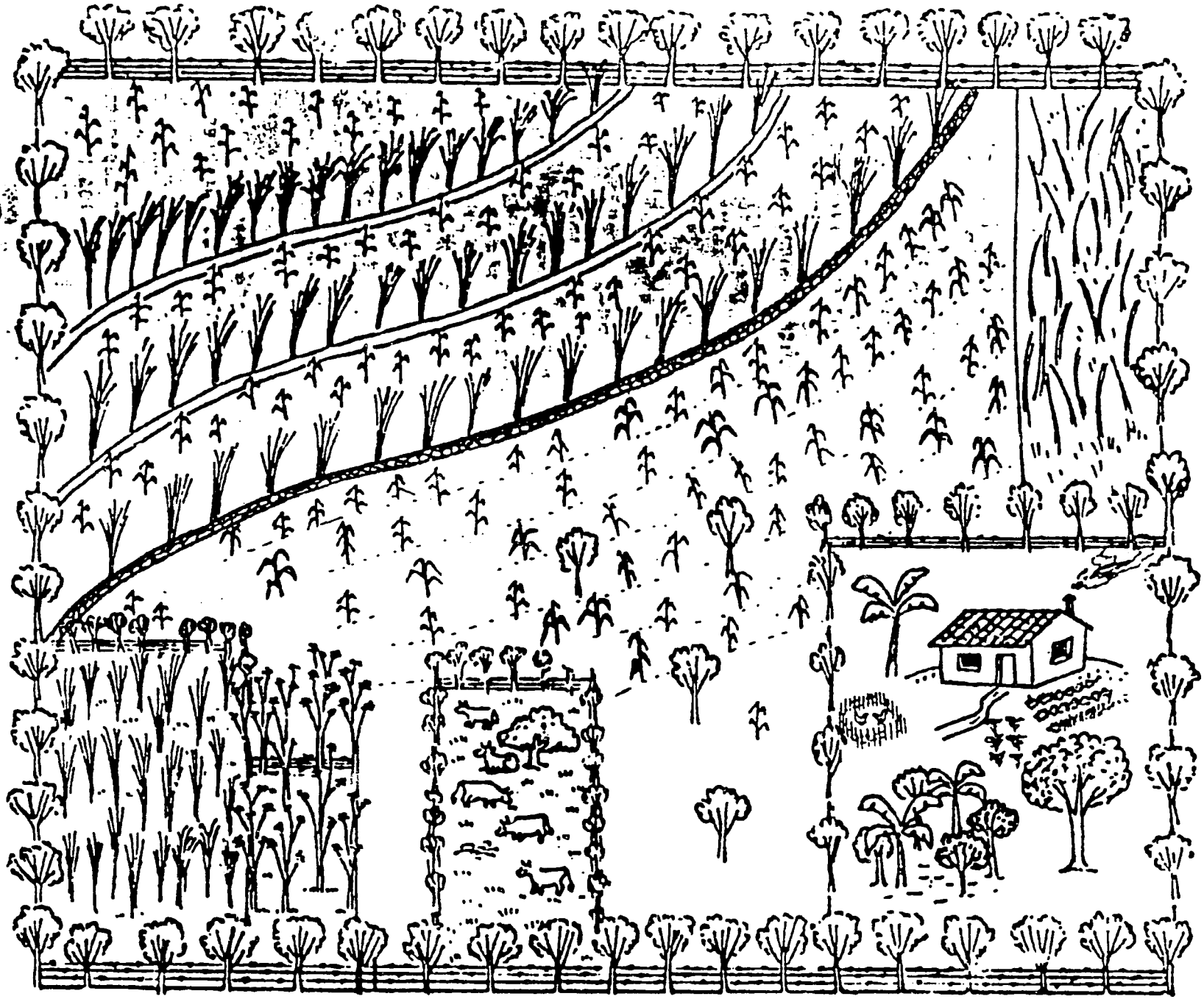

Figura 1. Sistema hipotético conservacionista de una finca pequeña.

IV. ACTIVITIES

LUPE will primarily follow the methods developed by NRMP and be strongly oriented towards in-the-field application based on local needs. This approach has been successful in dealing with many of the difficult technical, political and sociological problems present when attempting to work with the large number of small farmers from on the fringe of national economic activity. Research and investigation will be through on-the-farm field testing, with proven technologies recommended to participants for farm application. The design will be flexible to local needs through variation in technology package contents, relying on local groups for guidance in defining program orientation and approaches. The extension/technology transfer system will incorporate local paratechnicians and "productores enlace" for project implementation. Being part of the community, they will serve as a strong link to local groups and individuals and help to maintain a project presence across a wide area (see Extension and Training). Activities will improve traditional farming systems through the gradual introduction of appropriate technologies to increase production and commercialization potential while conserving the natural resource base and will focus on the entire family unit. This greatly increases the potential for integrated farm management by taking into account the interaction of family members important to sustain needed changes in traditional systems.

A. Field Testing of New Technologies

Field testing of new technologies will occur throughout the LOP and will be done through on-farm experimentation with farmers' on their own lands, or on groups lands with technical supervision from LUPE extensionists. In the case of these testing activities, the project will provide a "rent" payment to farmers in the form of a guaranteed minimum return at harvest from the plot (deficit will be covered by the project). Once technologies have been successfully tested under local conditions they will become part of the technology package promoted by the extension staff. Testing will be done in association with "productores enlace" (contact farmers) to facilitate later technology transfer to the community. It is expected that each agency will conduct approximately 25 field tests in the process of developing and improving its technology packages over a period of 2 years. These tests will be on various small plots whose sum total will not exceed 10 hectares per agency. Additional testing will be conducted as needed to further develop appropriate technologies for local application.

In the following sections, brief profiles are given on selected technology packages to be promoted under LUPE.

B. Mechanical Soil Conservation Structures

Mechanical soil conservation structures will be continued in LUPE but will be gradually reduced in emphasis in favor of vegetative techniques. Selection of mechanical structures will depend on local land/soil and climatic characteristic. The following structures*, which have proven most successful in NRMP, will be utilized:

- Hillside Ditches. Ditches are excavated on the contour with approximate dimensions of one meter wide by 75 centimeters deep, and at a spacing of 5 to 12 meters depending on local slope and rainfall characteristics. Ditches capture runoff, reducing it velocity and allowing improved infiltration. Ditches are used with a green barrier of selected grasses.

- Rock Walls. In areas of abundant rock, farmers are encouraged to construct simple walls on the contour. Rocks are collected from the surface of farmers fields and stacked or piled at spacings depending on slope and rock abundance. The walls reduce runoff velocity, help increase infiltration and clear cultivation areas of obstructions.

- Terraces. Narrow terraces are cut-and-fill constructed on the contour or at a 0.5 - 1.0 % slope (the latter built in heavy rainfall areas to remove excess water). Spacing and terrace width depends on slope and soil characteristics. Bench terraces (continuous stair-step type) will not be encouraged because of the great labor costs associated with them. Individual terraces for fruit trees are constructed on any slope and consist of a two-meter in diameter cut-and-fill circular structure. This terrace improves water captation and infiltration around the fruit tree. Terraces are usually used in conjunction with grass cover on fill berms.

These structures are described fully in "Manual Práctico de Conservación de Suelos"

C. Contour Furrowing and Minimum Tillage

Contour furrowing as a land preparation technique, will be encouraged with greater emphasis under LUPE. Using the "A" level, farmers are able to stake out the contours and then prepare furrows (manually or with oxen and plow) for planting. The furrows allow for increased water infiltration, laminar soil erosion control, facilitate cultivation and uniform planting density/distribution. Minimum tillage is similarly applied on the contour, but reduces ground disturbance by digging more narrow furrows approximately one meter apart while not cultivating between the furrows. This helps increase water infiltration while reducing the amount of land perturbed, in turn reducing it erosion potential.

D. Plant Distribution and Density

Traditional and untechnified planting practices do not take full advantage of available soil nutrients. Maize is traditionally planted with 4-6 seeds per hill at one-by-one meter spacings. Improved planting distributions in basic grains have doubled harvests for many farmers working in NRMP. Planting is reoriented on the contour (furrows, minimum till) with two seeds sown per site at 20-30 cm apart. Similar improvements are used for vegetable plantings. This practice leads to more uniform sunlight reception per plant, increased ground cover (weed control, rain deflection), increased nutrient per plant ratio; and easier cultivation.

E. Seed Selection of Traditional Varieties and Introduction of Improved Varieties

The basic approach in applying all technologies will be to keep applications simple. The introduction of higher yielding varieties of basic grains (primarily maize, but also millet and/or rice in some areas) is appropriate only where it is felt that the group or individual will be able to sustain the agronomic practices required with the new varieties, which usually includes a greater reliance on fertilizers and various fitopathological controls. In most cases, it will be more desirable to introduce techniques for selecting seeds from existing traditional varieties. In such cases farmers will gather seed for the next season only from those plants exhibiting desired qualities such as high production, resistance to disease, drought resistance, etc. The determination of which approach to apply will depend on results of the local-level diagnostic survey, access to new seed varieties, fertilizers and other needed inputs.

F. Slash, Mulch, Systems and Green Manure Systems

Traditional slash and burn agricultural techniques lead to an overly rapid release of stored nutrients, many of which are quickly lost to agricultural plants through erosion and leaching. the destruction of the soil's organic matter at the time of burning alters the soil's structure, often lowering its ability to store water, leading to greater run-off and sheet erosion. Slash, mulch and green manure systems encourage the incorporation of residues into the soil, eventually increasing organic material content, improving water retention and cation-exchange capacity and improving soil structure. The movement away from burning agriculture crop residues and fallow cover vegetation will provide organic matter and nutrients needed to maintain productivity and provide greater stability to cropping systems. This shift from traditional methods will increase long-term production at little additional costs to farmers or to the project. LUPE will continue to advance on-the-farm research related to various legume and forage species that have potential as green manures and mulches.

G. Improved Use of Agricultural Chemicals through Integrated Post Management

The misuse of insecticides, herbicides and fungicides is common throughout rural Honduras. In most hillside agriculture areas at least some low level use of these various agricultural chemicals occurs, frequently with little or no knowledge of proper use or needed precautions. Movement away from traditional techniques towards greater intensification can stimulate increased use of agricultural chemicals. LUPE will assure that its extension staff is adequately prepared in the application of non-chemical solutions:

- It will be the policy of LUPE to pursue an integrated pest management strategy using enhanced land-use techniques (e.g. multilayered, strip, and alley cropping), non-viral biological controls, and where necessary, controlled chemical usage.

- It will be an objective of LUPE to assure that those chemicals introduced into the project areas are of types that have the least negative long-term impact on local and downstream environments.

- Where chemical treatment is needed, emphasis will be on the use of organophosphates and similar short half-

live products. LUPE will discourage the use of chlorocarbons and other products with residual, long-lasting negative environmental impact.

- Training in integrated pest management and proper use of agriculture chemicals will be priority area at all activity levels.

One area of deficiency is in pest control management. there has been very little extension of training provided to hillside farmers or households in the correct use of agricultural chemicals or in the various alternatives to chemical controls. Field visits show widespread misuse of chemicals with little information available to farmers except from local sellers, commercial houses, or through advertising. Package instructions are frequently not read or are not understood, and proper precautions are not usually taken.

To begin to deal with this problem will require LUPE to provide more thorough training to its agents in integrated pest management systems. To accomplish this will require LUPE to contract either the Fundaciòn Hondureña de Investigaciòn Agrìcola (FHIA) or the Panamerican Agricultural School of Zamorano. FHIA has developed more facilities and expertise in the practical applications most needed by the project. At least one agent in each of the proposed 90 field offices should have technical training in IPM methods. As in-house backup, regional offices will have at least one specialist in agronomy with thorough training in these management systems.

H. Improved Pasture and Range Management

Technical packages will focus on making more forage available to livestock and improved use of existing forage resources. NRMP has been highly successful in the introduction of cut grasses (Pennisetum) to small and medium-scale producers grown in alley-cropping combinations (green barriers) and in small plots at the farm level. Feeding practices, however, must be improved to emphasize animal containment and cut-and-carry systems (see Figure 1). This will reduce uncontrolled grazing, increase nutrition and weight, and make manures readily available for composting and organic fertilizer. While NRMP has concentrated on medium-scale producers promoting a comprehensive program of animal management (nutrition, hygiene, infrastructure) with the use of credit, LUPE will emphasize a more direct approach of pasture, forage and range management with only secondary emphasis on animal hygiene. In range management, efforts will be redirected toward more systematic rotational grazing and reduced dependance on burning of pasture and rangelands that result in forest fires and land degradation.

I. Small-Scale On-Farm Water Management

NRMP assisted in the establishment of various small irrigation systems used by small-scale commercial farmers to increase the productive potential of their farms. There remains, however, a large potential for implementing on-farm water management systems of different types and sizes. LUPE will collaborate with Recursos Hidricos (PRORIEGO) in assessing the potential for increased utilization of water resources in selected areas. Emphasis will be in establishing small-scale (1-5 hectare) gravity-fed, low-head irrigation systems and on improving more rustic water management systems, such as roof catchment systems, cisterns, and small earthen dams/reservoirs. More water will be made available for drinking, domestic uses and supplemental irrigation.

J. Home Gardens

NRMP has had limited success in promoting home gardens. Under LUPE, this activity will be given much more emphasis, especially involving women and youths. Improved multi-cropping and agroforestry (multi-tiered) techniques will vastly improve the productivity of the home garden. Priority will be given to local traditional varieties, such as camote, yucca, pataste, squashes and herbs. Secondary emphasis will be placed on diversification of gardens with flowers, spices and exotic vegetables and fruits. Fruit trees will play a major rôle in home gardens with an effort on planting 5-15 fruit trees per participant in this activity. Home gardens are one of the best methods to increase family nutrition and provide the potential for generating income in the household (i.e. surpluses and cash crops).

K. Community Nurseries

LUPE will change the emphasis of NRMP, away from regional (agency) nurseries, moving gradually toward small-scale community nurseries. Nurseries with a capacity of 1,000 to 10,000 trees (fruit and multipurpose) will be encouraged through technical assistance and provision of limited nursery supplies and plant materials. With the establishment of 500 small nurseries, transport costs will be greatly reduced, a higher level of enthusiasm and technology transfer will occur, and greater care given to trees. Simple nursery management and grafting techniques will be transferred to participants. While it is expected that greater interest will be expressed for fruit trees, participants will be required to produce 10 multi-purpose trees for each fruit tree.

L. Forest Protection and Management

Just as farmers are promoted to improve the productivity of their farms, they will be promoted to properly manage forest resources in order to sustain goods and services, such as: fuelwood, building materials, fence posts, furniture, resins and fruits, and as the best cover for watershed management. NRMP's campaign to work with wood cutters and farmers in selective cutting techniques, thinning and forest protection should continue under LUPE--especially in buffer zones in proximity to forest/hydrologic reserves. Higher emphasis will be placed on controlled burning of agricultural fields and pastures through educational campaigns. Food-for-work programs for forest management will be discouraged, as this is seen as counter productive to transferring these technologies. Fire prevention is the most efficient reforestation method and will be supported in collaboration with COHDEFOR through environmental education and community surveillance brigades. LUPE's approach will be one of "rational use" rather than "hands off".

M. Agroforestry and Alley Cropping

The objective of the agroforestry program will be to expand on initial efforts concentrating on products of domestic value such as forage and firewood, and on marketable products,such as fruits and spices. Agroforestry will be closely linked to soil conservation and land use diversification. The program of nursery development through local groups and the private sector will be a base for agroforestry efforts.

As with other key aspects of land use diversification, initiatives in agroforestry must be rooted in a knowledge of local needs and dependent on individual and group participation for designing appropriate systems. Characterizations to be conducted by LUPE at the inception of activities in a community will include date gathering on the role of trees in existing land-use systems, and on perceived needs for increasing that role. Later activities with community members will attempt to define methods for greater utilization of tree species, including agroforestry approaches. In forming agroforestry models for local use, field staff will first determine whether agroforestry methods exist as part of traditional land use systems, and if so, what species, products, etc. Also, what are the sources of firewood and other wood products for local consumption, the costs, and the effects on the local resource base?. What are the sources of forage; are there markets for fruits?

The NRMP has produced a good practical manual for extensionists to use in their work with farmers in planning and implementing agroforestry systems (Manual Practico de Agroforesteria). Greater utilization of the described systems will provide LUPE with important tool for dealing with many problem areas including soil conservation, reforestation, range and pasture management, and crop diversification.

The use of multi-layered, intercropped agroforestry systems will be more fully developed as a means to promote site protection while also increasing productivity. The types of crops, grasses and trees used in these systems will be varied to meet local needs. Of particular interest is the technique of alley-cropping whereby woody perennials such as Leucaena leucocephala or grasses (Pennisetum spp and others) are planted in rows on the contour spaced 5-12 meters apart and the areas in between (alleys) are contour planted to crops. The rows are periodically trimmed to prevent shading and to produce valuable products services such as barriers against erosion, soil improvement through nitrogen fixation and production of the high quality organic matter, (green manure) mulch and forage. Other agroforestry methods will also be explored including: silvopasture management through the use of fence rows and scattered high value high value timber trees; windbreaks; fruit tree planting as part of the intensification of traditional systems; and high value shade tree/permanent crop combinations (see Figure 1). NRMP manuals and experience will be used to help in the selection of appropriate species and techniques suitable for local applications.

Agroforestry will be incorporated as a major tool in buffer zone management on lands surrounding critical areas. The use of local groups for critical area management and protection will be encouraged.

N. Buffer Zone Management

Honduras has unique and biologically diverse ecological features, a combination of topographic characteristic and climatic patterns that produce convincing examples of the role of forests in the production of water for domestic and agricultural use. It is not uncommon to observe a pipe originating within a cloud forest at the top of a mountain providing water to the village located at its base. NRMP has shown that it can contribute to the protection of these critical areas, by working with hillside farmers in the "buffer zone" that surrounds them, in the development and application of appropriate resource utilization practices.

The Asociación Hondureña de Ecologia (AHE) recognizes 31 natural areas designated as critical for water catchment and retention (i.e., cloud forest areas). Many more natural areas are considered critical for the preservation of biological diversity. While many of the extension methods to be used in LUPE apply also to buffer zones, these deserve priority treatment with specific emphasis on resource conservation, restoration and management.

The objective of this activity is to protect critical natural areas in order to assure their continuous support (e.g. water) to agricultural development and human well-being as well as to contribute to the maintenance of biological diversity. The purpose of buffer zone management is to stabilize hillside farming activities and resource utilization practices around protected natural areas such as national parks, natural reserves and water catchment areas identified as hydrologic reserves. In this respect, buffer zone management contributes to the overall goal of LUPE by developing and implementing technology packages specifically geared to sustaining production in fragile areas. This activity encourages the development of appropriate farming systems within buffer zones as an incentive to reverse environmental degradation and as a way to achieve protection of critical natural areas.

LUPE will establish extension agencies strategically near buffer zones and, through effective extension mechanisms, will develop and transfer appropriate technology packages geared at the hillside farmers, whose activities threaten to degrade or destroy these biological and/or hydrologic reserves. Though the implementation strategy doesn't differ widely from that applied in other areas, it will emphasize techniques that more closely emulate the natural ecosystem in regards to vegetative cover, water retention capacity and biological diversity. Specific attention will be given to agronomic practices that emphasize biological controls instead of pesticides, exclude or reduce the use of herbicides, and minimize the use of fertilizers. Emphasis will also be placed upon appropriate soil conservation regeneration practices, using primarily biological structures (i.e., contour hedgerows, live barriers, alley cropping and agroforestry applications). Mechanisms will be developed to restore fragile areas not well suited for farming or grazing, to their natural condition through reforestation and arrangements involving the farmer in activities other than agriculture (i.e., surveillance, fire prevention). These latter efforts will result in the recuperation, through natural regeneration, of lands previously utilized.

Extensionists will be specifically trained in techniques appropriate for protected areas management and other aspects of environmental reservation. They will receive special training in

motivation and communications in order to be most effective in reducing demographic pressure in the buffer zone. Peace Corps Volunteers specifically trained in environmental education and wildland management will integrate extension units whose influence area includes the buffer zone. Training and technical assistance be provided by AHE on protected area management and environmental education. LUPE will also collaborate, on an ad hoc basic, in monitoring the status of and environmental impacts to these reserve areas.

V. OUTPUTS

Before PACD, LUPE will result in the following outputs in integrated hillside agriculture and resource management:

- transfer to 50,000 participating households of appropriate technology packages for improving the productivity of traditional hillside agriculture and resource use.

- a 50% increase in basic grains production among participating farmers;

- improved land use practices and gradual reduction of soil erosion on 50,000 hectares resulting from various technology applications in the project area, including 10,000 hectares of improved pasture and range and 40,000 hectares of hillside farm lands under conservationist agriculture;

- the planting of 500,000 fruit trees in orchards, home gardens, and agroforestry applications;

- establishment of home gardens in 10,000 households;

- the planting of 5,000,000 multi-purpose trees in woodlots, watershed regeneration areas and in agroforestry applications;

- use of improved water management systems effecting 2,500 farms;

- development of local-level knowledge in nursery management and seedling production with the creation of 500 local nurseries;

- increased protection of defined critical areas within the project area important for the preservation of biological diversity and/or watershed productivity with the creation of at least 12 buffer zone management areas.

VI. INPUTS

To attain the outputs described under this component, the following inputs are required:

1. A total of 144 pm of long-term technical assistance in integrated watershed/natural resources management (48 pm), agroforestry alley cropping (48 pm) and tropical horticulture/agronomy (48pm), valued at $ 2,160,000.

2. 12 pm of short-term technical assistance in areas including: agricultural economics, integrated pest management, fruit trees (pomology), community nursery management, range and pasture management, soil conservation and on-farm water management; valued at $300,000.

3. Long term-training to form the expertise need for continuance of program activities into later years of project and beyond (total value $575,000).

   - 1 Ph.D. level in Integrated Natural Resource Management Planning (USA 36 months).

   - 2 M.S. level in agroforestry and crop diversification. Regional institutions recommended (CATIE, CIAT-24 months each).

   - 2 M.S. level in agronomy-emphasis on soil management, small farm systems, integrated pest management. Diverse programs regional plus (USA, e.g. U. Florida, Cornell U. 24 months each).

   - 1 M.S. level in pasture and range management (Regional programs. 24 months).

   - 1 M.S. in animal husbandry-small animals (24 months).

   - 1 M.S. level in ag. economics with emphasis on small farm management systems (24 months).

   - 3 B.S. level in other areas of natural resources and land-use management as project needs indicate, (24 moths each).

4. Misc. regional short courses and workshop to address needs of professional staff related to small farm production systems; 200 person/months; valued at $400,000 ($2000/month).

5. Logistics, equipment, inputs, plant materials and supplies costs to produce 500,000 fruit trees and 5,000,000 multipurpose trees in 500 community level nurseries valued at $900,000 (at $ 1.00/fruit tree, $0.08/multipurpose tree).

6. Costs of plant material, fertilizers, agricultural inputs, tools, etc., needed in the promotion of improved hillside agricultural technologies to 50,000 farmers/producer; valued at $ 2,500,000 ($50/farmer/hectare).

Total cost of inputs US $6,835.000.

EXTENSION AND TRAINING COMPONENT

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I. INTRODUCTION

Programmed extension outreach services and comprehensive training were the cornerstone of NRMP success and they will play an equally important role in LUPE. Extension and training will be the principle tools for technology delivery/transferal in the project.

The extension and training component will build on the successful methodologies developed by the NRMP and other projects and will incorporate several suggested reorientations and improvements. The key elements in this strategy will include: 1) a grassroots approach to extension outreach that relies on para-technicians and contact farmers/homemakers (agricultores enlace) to help deliver technical information and services at the farm-level; and 2) training of trainers methodology in which specialists at the central level are trained as technical and/or extension methodology trainers to train extensionists. Similarly, extensionists and paratechnicians will be trained to capacitate contact farmers and other targeted groups. The focus of extension at the community level will be to promote practical "hands-on" skills training that will enable LUPE participants to adapt and implement project generated technical packages.

II. EXTENSION METHODOLOGIES

The effective implementation of the LUPE extension component will require a clearly defined structure, competent management, and efficient operational/administrative procedures. LUPE will use a large staffing level of field personnel (estimated at 500-600 people) to reach an ample number of scattered clients. Client participation will be an important factor in the development of program procedures, and the structure of the extension organization. Research by AXINN and THORAT (1972) indicates that: "the extent to which the goals of an agricultural extension program will be achieved tend to be directly related to the extent to which those toward whom the program is directed have participated (possibly through representatives) in establishing the goals".

Others factors which affect the structure and approach in extension are:

- Extension effectiveness is directly related to the number of contacts made by extension workers with given individuals as well as the approach used by the worker (Rogers 1983).
- Extension needs two-way open communication with both researchers and farmer clients.
- Extension needs to interact continuously with external agencies including providers of credit and inputs as well as marketing agencies and policy makers.
- Extension budgetary disbursements must consistently provide sufficient and timely funds for program implementation (i.e., extension workers require adequate funding/ resources to conduct on-going in-the-field activities).
- Extension personnel should devote their time exclusively to extension work; they should be assigned only limited regulatory or administrative work.
- Extension requires clear definition of its mission and its scope of activities.
- Extension needs to have clearly understood lines of authority; staff need to know who they are responsible to and for what, as well as how they are to be evaluated.

A. Review of Extension Experience to Date

USAID funded projects (i.e., NRMP, PTR and Partners) utilize extension personnel organizational structures which usually include: technical specialists (TS), extension supervisors, extensionists/promoters, paratechnicians (PTs) and productores enlace (contact farmers - CFs). All but contact farmers (CFs) are salaried extension personnel; CFs are volunteer community "leaders" or "innovators" either elected by local community groups or chosen by local extensionists. CFs in the NRMP receive approximately 7 weeks of training over a six month period, during and after which they share their newly acquired knowledge with others, implement improved low cost farming practices on their own land, set up demonstration plots (for which they receive subsidies "in kind"), and conduct meetings to convince other farmers to adopt some of the improved practices.

Both the Partners and NRMP implement CF courses which foment technical training (i.e. soil conservation and basic grains) as well as leadership and group management skills. Some specific benefits, of training and utilizing CFs for LUPE implementation are:

1. CFs are an effective extension outreach mechanism for influencing large numbers of farmers.

2. Upon completion of training they can transmit technical messages in language and terms easily understood by neighboring farmers.

3. They can act as key informants in identifying local problems, needs, and constraints to production.

4. As "innovators" in their community they may be more willing to participate in on-farm experimentation.

5. As trained leaders they can conduct farmer meetings (motivational, organizational, instructional events).

6. They are unsalaried volunteers and yet the knowledge acquired in training courses transforms them into community resource persons, giving them prestige and respect.

It is important to note that the overall successful extension methodology employed by NRMP (i.e. community needs assessment, farmer training, collaboration with CFs, use of demonstration plots, field days, educational tours, method demonstrations and talks) is also similarly used by Partners and PTR. Therefore, personnel from all these projects incorporated into LUPE will all be able to follow the same basic extension outreach practices. Unfortunately, the common ground shared by

these three projects with regard to extension methodology quickly shrinks in terms of how each one deals with the use of incentives. NRMP utilizes direct subsidies paid "in kind" and occasionally in cash and also offers training. PTR utilizes credit as an incentive. Partners utilizes a small loan program (maximum value of L.250 per farmer per season) but its main inducement to evoke active farmer participation is by offering training. Partners reluctance to use subsidies is an exception to the common development strategies utilized in Honduras. Incentive programs have been so overabused in Honduras that in some areas of the country under the auspices of "development programs" farmers have not learned/adopted relevant improved practices, but rather have learned to negotiate better pay (i.e. more food subsidies) by bargaining with competing donor agencies. Subsidy programs also send the following message to farmers: "you are incapable of accomplishing this by yourself, so we will pay you to do it". Lastly, incentives are utilized as an extension method or "crutch" to attain a project's physical objectives and outputs.

Other problems identified in on-going projects which will be rectified within LUPE are:

1. Projects have a tendency to require extensionists to perform multiple tasks, thus detracting from their primary function which is to motivate, educate and to provide timely and relevant technical guidance.

2. Projects wrongly believe that quantification of physical achievements (i.e. a numbers game) is the only measure of successful implementation. Carried to an extreme this can mean drainage ditches not built on the contour causing more erosion than if the parcel had been left untreated; or the establishment of numerous demonstration plots that farmers are never invited to observe.

3. Project extensionists are considered "outsiders" by farmers because, they do not live in the area of their work assignment.

4. Projects produce media (especially film strips and slide shows) that are controlled by central agencies and are not readily available for use by extensionists. At the same time the lack of didactic materials and media at the field level are seen as a barrier to conducting effective extension outreach because extensionists do not know how to develop low cost, learner relevant media utilizing locally available resources.

5. "Elitist" attitudes of some extension personnel (possibly because they have formal educational degrees,

project transportation, and come from more urban areas) cause them to "talk down" at farmers.

6. Illiteracy is seen by extensionists as a barrier to carrying out extension activities because they have received little or no training on how to teach/train semi-literate and illiterate groups.

7. "Lack of consciousness/awareness" on the part of rural populations is viewed as another barrier because extensionists lack training in motivational techniques and how to dialogue/communicate with farmers.

B. Objectives of the Extension Methodology

The primary objective of the LUPE extension component is to provide relevant and timely extension outreach services to LUPE project target beneficiaries. A second objective is to increase farmer awareness concerning land use practices that promote the long-term sustainability of hillside farming while at the same time increasing productivity. A third objective is to promote "farmer-up" participation in the extension development process.

C. Implementation Approach

1. Continuation of Successful Extension Strategies/ Methodologies

From the outset LUPE can generally follow the "Manual Práctico de Extension" developed under the NRMP as a guide to conducting extension activities. This manual presents the principle steps for LUPE extension programming at the agency level, which are: (see Figure 1)

a. Area needs assessment (characterization of the communities within the agency's outreach area).

b. Identification and prioritization of problems.

c. Selection of improved technologies and training.

d. Directed extension efforts targeted to specific groups.

e. Indirect extension activities to outlying populations.

f. Permanent collaboration with contact farmers.

Figure 1

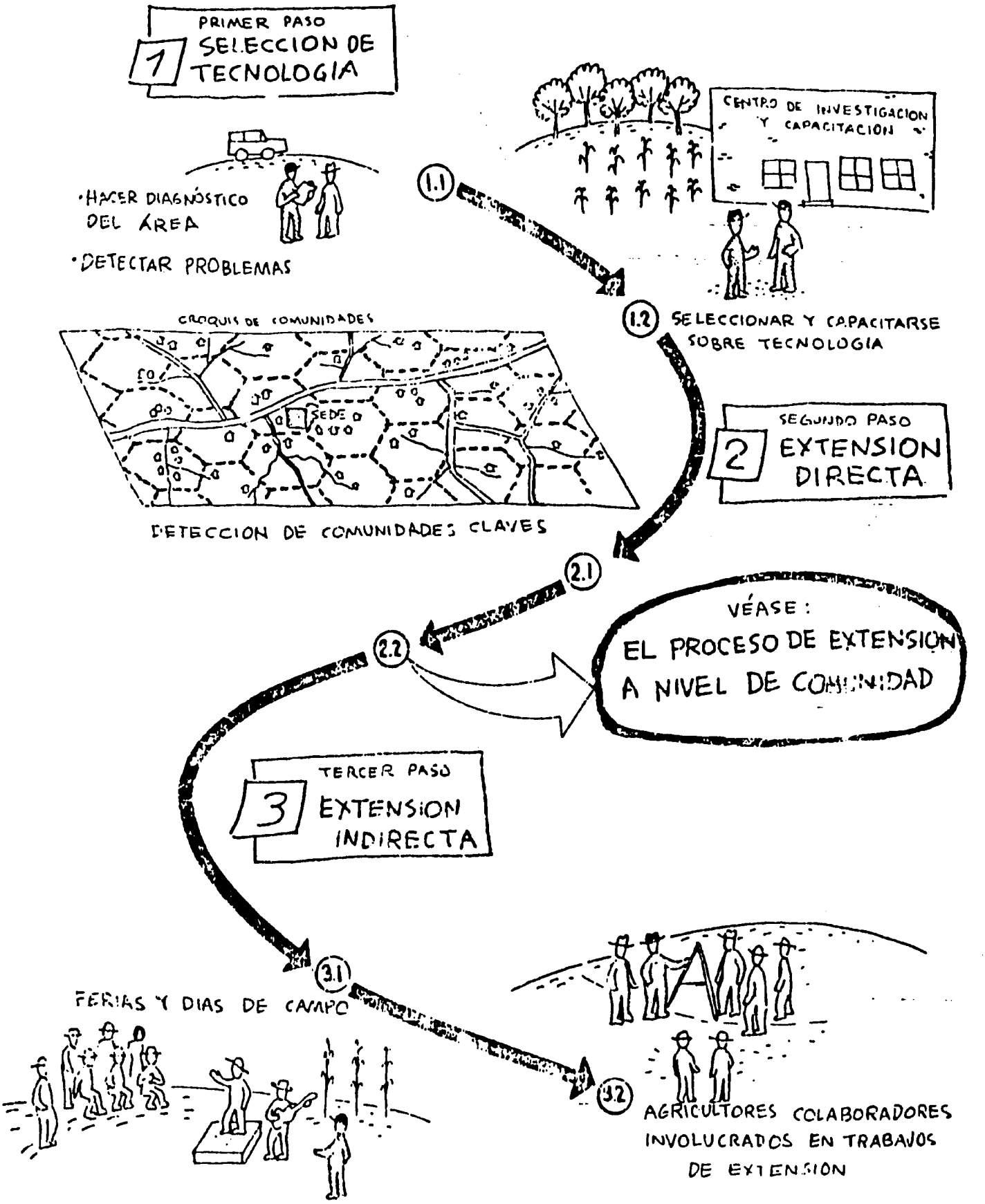


Figura 1. PROCESO DE EXTENSION A NIVEL DE AGENCIA

The process of extension interventions at the community level which LUPE will follow are: (see Figure 2).

a. Community involvement in needs assessment (diagnóstico participativo).

b. Promotion, including educational tours, meetings establishment of demonstration plots.

c. Start-up - including training, field days, direct technical assistance to groups and individuals.

d. Consolidation - including selection and training of CFs (productores enlace).

e. Expansion - Including outreach to other groups, new activities - (i.e. bovine and small animal production), and on-farm experimentation by farmers.

f. Specialization - Formation of commodity-orientated producers' groups (vegetables, artisanry, shrimp production).

g. Liberation - Farmers, now self- sufficient, motivated to seek technical assistance at the agency level with minimal follow-up on the part of project personnel.

LUPE will also utilize the standard extension methods described in this manual including: result demonstrations, method demonstrations, demonstration plots, educational tours, field days, meetings and talks. Method demonstrations, demonstration plots and educational tours are to be highly encouraged because they evoke active farmer participation/involvement in the activity.

2. Proposed New Extension Strategies

a. Reduced Dependence on Incentives and Increased "Farmer-up" Dialogue

The judicious use of incentives is an important aspect of the technology-transfer process. Care must be taken to avoid overuse of incentives to the point they become "subsidies", thus creating paternalism and a dependence on the same. Where incentives are required, they will be focused more on training and "in kind" types, such as plant materials and certain tools needed for introduced technologies. These, however, will be kept to quantities needed for demonstration, and not for meeting the requirements of on-farm production.

Figure 2

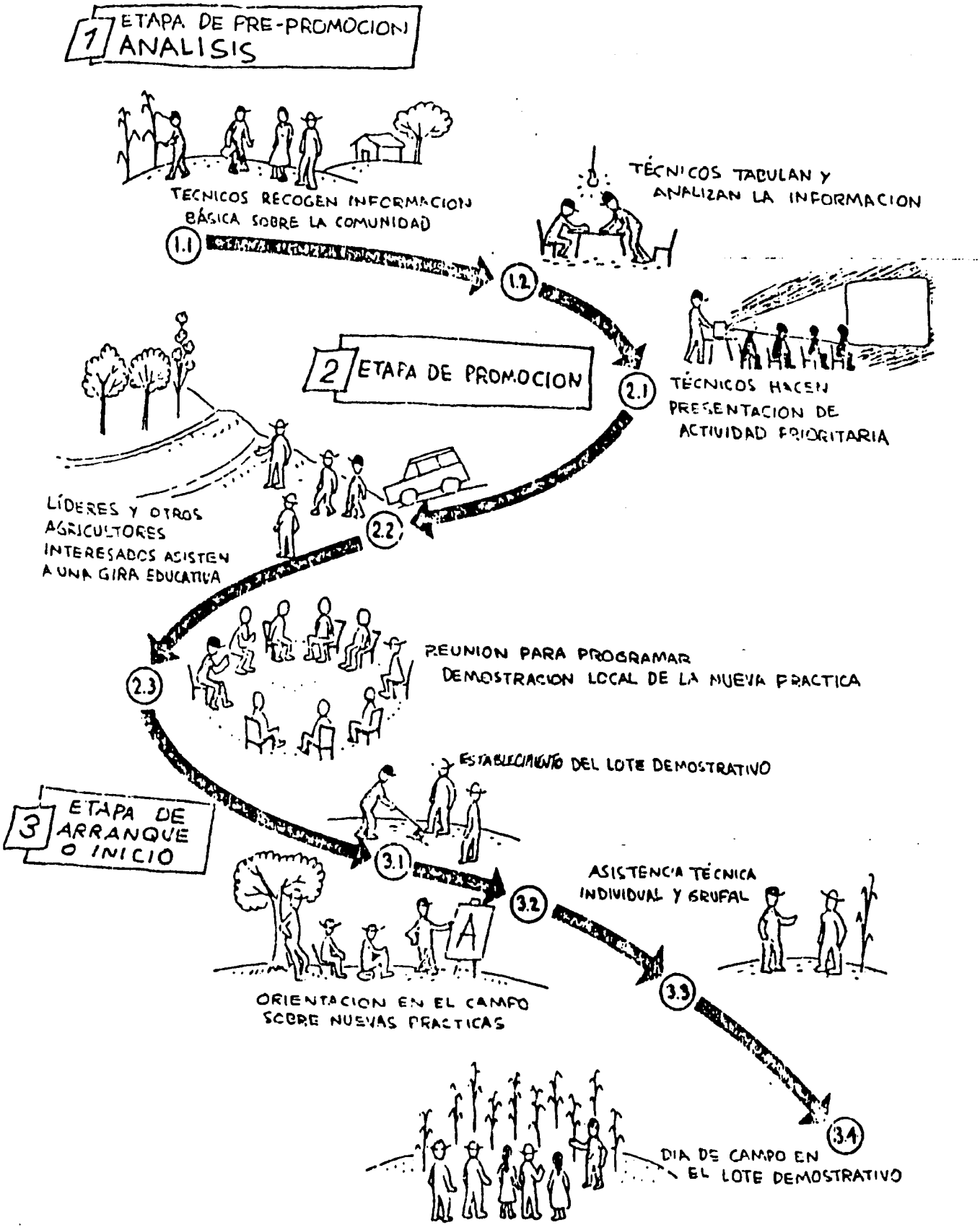
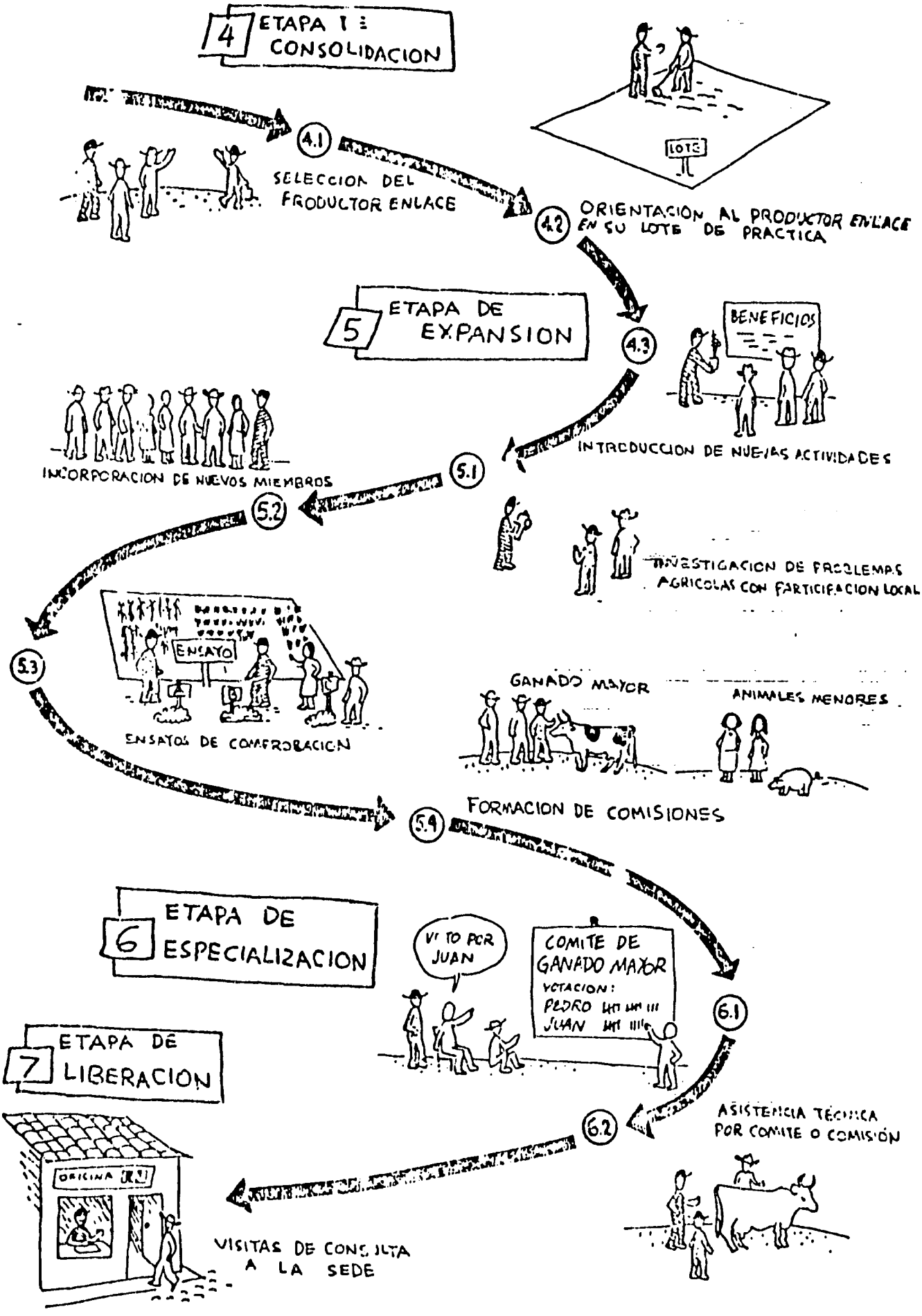


Figura 2. PROCESO DE EXTENSION A NIVEL DE COMUNIDAD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INCORPORACION DE NUEVOS MIEMBROS
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INVESTIGACION DE PROBLEMAS AGRICOLAS CON PARTICIPACION LOCAL
5.3
ENSAYO
ENSAYOS DE COMPROBACION
GANADO MAYOR
ANIMALES MENORES
5.4
FORMACION DE COMISIONES
6 ETAPA DE ESPECIALIZACION
VOTO POR JUAN
COMITE DE GANADO MAYOR
VOTACION:
PEDRO
JUAN
6.1
6.2
ASISTENCIA TECNICA POR COMITE O COMISION
7 ETAPA DE LIBERACION
OFICINA
VISITAS DE CONSULTA A LA SEDE

Resolution of the incentives problem is a complex issue and a diversity of approaches is to be encouraged within LUPE. The Partners Project use of incentives can provide lessons for enhancing LUPE's extension approach and in-the-field implementation strategies. Their incentives methodology can also serve as a possible yardstick for judging the effectiveness of LUPE extension outreach programs. Therefore, it is, proposed that Partners continue participation in LUPE on a contract basis and that they be assigned a specific geographic region for implementation activities.

As more judicious use of incentives is encouraged, extension personnel will utilize the Dialogue Methodology Approach (DMA) for communicating with, motivating and convincing farmers to act on their own account and not because some "gift" is being offered to stimulate their efforts. The DMA is a methodology by which the extensionist deals with/communicates with the farmer at his own level and in his own terminology. DMA fosters a relationship of mutual trust and responsibility between farmer and extensionist in which the farmer is esteemed for his "hands-on" practical abilities and day-to-day decision making skills while the extensionist is respected for his/her ability to provide critical information and training for implementing improved technologies. The concept of Dialogue Methodology Approach to extension is more fully explained in Annex IB.

A specific teaching tool for working with groups, known as the Experimental Learning Model (ELM), will be utilized to complement the Dialogue Methodology Approach. Unlike traditional teaching techniques which usually start with a "top down" lecture, the ELM inevitably begins with an ACTIVITY (i.e. "hands-on" experience) followed by a processing phase involving questions and group discussion. By utilizing adept questions in the processing phase the extensionist induces the participants to express observations, feelings, and reactions, to draw conclusions about what they learned and to act upon their new knowledge. The ELM is fully explained in Annex IC.

b. Reduced Paperwork Load for Field Staff

Under LUPE, extension personnel will be required to fill out fewer forms and to conduct more in-the-field activities. Implementation of this strategy will require updating/improving annual and monthly work plans, supervision and control sheets etc. as well as a redefinition of what the project needs to monitor in order to evaluate progress toward goals and outputs. Truly, "a paperwork reduction act" is needed in order to permit extension personnel to spend more time in contact with farmers. Implementation of this strategy may require an understanding with MNR that LUPE supported regions or agencies have autonomy over

the information to be generated and collected for project tracking control and planning. (See Section on Project Planning, Inventory Evaluation and Reporting).

c. Qualification of LUPE Project Impact

Monitoring of the impact of extension efforts under LUPE will necessarily require quantitative data such as numbers of participants/ beneficiaries, estimation of total area under improved land-use practices etc. Qualitative analysis of results is more complex but is critical for measuring the impact of extension on attitudes and awareness, and whether or not true learning and adoption of technologies has occurred among the project's targeted beneficiaries.

Specific parameters which will be monitored under LUPE to provide dynamic feedback on program impact are:

(1) Reactions - Interest in, like or dislike of program activities, acceptance of leadership at the community level.

(2) KASA Change - Changes in Knowledge, Attitudes, Skills and Aspirations.

(3) Practice Change - Adoption/application of acquired KASA to work or daily life situations.

(4) End Results - Benefits and consequences that follow from KASA and practice changes.

Recommended methods to measure qualitative impact include: direct observation, oral testing, group question/feedback sessions, time-trend studies, "before-after" studies, and case studies. Further description of each method is found in Annex II. Quantification of data infers that "more is better" but this information is somewhat irrelevant if one assumes that rural development is an educational process. Qualification of the project impact will indicate whether or not behavior changes and learning have occurred and, if carried out objectively, will serve as a dynamic fine-tuning mechanism enabling LUPE to make adjustments in: strategies, intended target groups, technologies identified and transferred, methods and media utilized, training activities, operational procedures, etc. This approach will be incorporated in LUPE's enhanced impact monitoring program described in another Annex of this document.

d. Community Contact

Under LUPE field level extension personnel (i.e. extensionists, WID promoters and PTs) will be required to live in the area of their extension agency. This strategy will discourage participation by "asphalt agronomists" (degreed agronomists who prefer the comforts of the city) and will stimulate recruitment of PTs at the local agency level. It will also somewhat simplify transportation needs at the local level, cut down on excessive fuel consumption and discourage absenteeism. However, the main objective of this strategy is to make extension personnel integral members of the communities they work in, and be readily accepted by community members.

e. Participatory Educational Techniques/Methods for Working with Semi-Literate and Illiterate Target Groups

The method demonstration, demonstration plots, and educational tours as utilized in existing projects are all examples of participatory educational methods and they will continue to be the cornerstone of the methodology of LUPE extension outreach. However, all of these methods can be more effective when utilized in combination with the Experiential Learning Model. Training staff will develop a training module by the end of year one that will combine the basic concepts of the ELM along with specific teaching/training techniques such as: brainstorming, role play, village theatre, case studies, Phillips 66, the Fishbowl discussion group, etc. A more complete list of some participatory educational techniques is to be found in Annex IF.

B. Organizational Framework

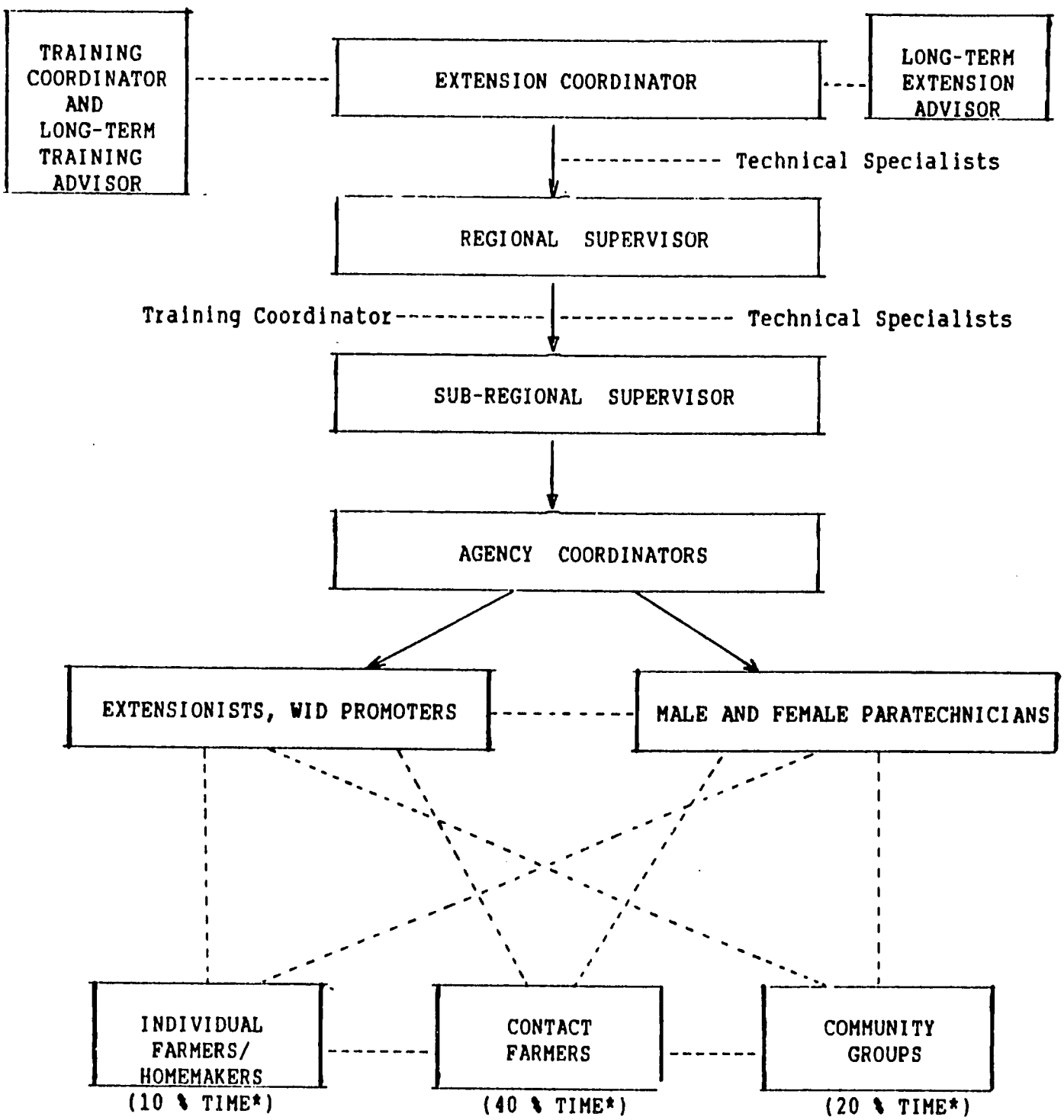
LUPE will implement an extension personnel organizational structure which will include the following levels: technical specialists (TS), supervisors, extensionists/promoters, paratechnicians (PTs) and CFs. In addition, it is strongly recommended that training coordinators with specialized skills be recruited at several key levels of the proposed organizational structure.

A proposed organizational framework (organigram) for LUPE extension personnel is presented in Figure 3. The overall LUPE extension coordinator will work closely with the LUPE training coordinator as well as the proposed long-term extension advisor and the long-term training advisor.

Figure 3

EXTENSION COMPONENT

Organizational Framework (Organogram)



* Refers to approximate in the field time dedicated by agency extension personnel to designated target groups.

_____ Lines of Authority

NOTE: Assumes:

1) Limited recruitment of new extension field personnel at the agronomist, "teacher", "perito agrônomo" level.

2) Increased employment of paratechnicians (especially women)

3) Provision of substantial pre-service and continuous in-service training for paratechnicians and contact farmers.

4) Possible recruitment of Paratechnicians from the ranks of contact farmers.

1. Technical Specialists (TS)

Technical Specialists will be located at the central and regional offices. TS will be required to spend at least 1/3 of their time conducting in-the-field activities (i.e. technical support to supervisors, agency, coordinators, extensionists and paratechnicians), and 1/3 of their time preparing and implementing training courses for extensionists, PTs and CFs. The remaining 1/3 of their time will be devoted to researching new technical information, and assisting in applied on-farm experimentation. The TS will act as the key link between formal research efforts and local farmers needs.

2. Training Coordinators

Training coordinators will be located at central, and regional levels. Under LUPE implementation training must be given high priority because PTs will represent the majority of extension field workers by project activity completion date (PACD) and also since PTs may be recruited from the ranks of competent CFs. Training coordinators will spend roughly 40% of their time planning and implementing technical courses, 40% of their time designing, conducting and evaluating courses on extension, methods/media development and use, and group communication skills, and 20% of their time on training needs assessments and preparation of training materials. Training coordinators should be women and men recruited from the ranks of social promoters, agronomists, extensionists, teachers, WID promoters, and peritos agrónomos. For effective training implementation under LUPE a cadre of at least 10 full-time training coordinators will be required. This estimate assumes that total training outreach will encompass more than 1000 people (340 extensionists, 180 paratechnicians and 540 contact farmers). A mandatory prerequisite for working as a training coordinator will be the successful completion of training-of-trainers (TOT) courses implemented by LUPE technical specialists.

3. Supervisors and Agency Coordinators

This cadre will be recruited from the ranks of agricultural professionals having educational equivalency at the Associate or University degree level. From LUPE outset an effort should me made to select and train an increasing number of women as supervisors/coordinators. Ironically, professionals at this level are competent technicians, but, even though they may be considered mid-level managers and administrators, they usually have never received training in these areas, as is the case in several USAID funded projects (NRMP, PTR and others). As a prerequisite for placement, this group will be trained in the

following: diagnostic needs assessments, elaboration of operational objectives, planning/ programming, monitoring and follow-up, formative and summative evaluations, use of feedback mechanisms, problem solving and human relations skills. Since training is critical to LUPE implementation success this cadre will also receive Training of Trainers (TOT) courses. Both supervisors and agency coordinators will have responsibility for scheduling, coordination, and logistical aspects of training for agency level personnel and CFs. Technical Specialists will provide technical back stopping for this level of professionals.

4. Extensionists, Women in Development Promoters

As an overall strategy, employment of extension personnel at the degree level will gradually be reduced in favor of increased utilization of locally selected Paratechnicians. Extensionists and WID promoters will devote 20% of their time to training and collaborating with/assisting male and female paratechnicians. They will also provide direct technical assistance to contact farmers, community groups and individual farmers/homemakers, devoting approximately 40%, 20% and 10% of their work time, respectively, to each target group. Under LUPE it is not recommended that extensionists be the direct supervisors of PTs for two reasons:

- With direct line authority of extensionists over PT the project runs the risk of having the PTs converted into "handmaidens" of the extensionists, thus countermanding a long-term LUPE goal which is to increase extension outreach coverage to project target groups through direct technical assistance provided by PTs, while at the same time reducing recurrent costs with eventual reduction in use of extensionists.

- PTs must be assigned productive work responsibilities in order to gain meaningful on-the-job experience that will prepare them to carry out a proportionate share of the work load as proposed in the LUPE extension staffing plan.

A proposed weekly extension outreach schedule is presented in Figure 4A and a proposed weekly training schedule is detailed in Figure 4B (the training schedule emphazises continuous in-service training and attendant efforts to instruct LUPE beneficiaries). In-service training will be relevant and opportune in terms of the agricultural/cropping cycle of the local areas and therefore the technical messages acquired by extensionists and PTs, will be immediately transferable to farmers and other LUPE participants.

Figure 4A

Proposed Weekly Schedule of Work Activities
and Target Group(s) for Extension Personnel
During a Typical Work Week

Weekly Extension Outreach Schedule

M	T	W	T	F
Farm Visits* .M. (CF + IF)	Methods and Media Preparation	Farm visits * (CF)	Educational Tour (CG)	Farm visits* (CF + IF) Coordination Meeting (PT)
Farm visits* (CF) .M.	Method Demonstration (CG)	Assist/Train (PT)	Train (CF)	Reports Weekly work plans, material preparation

Figure 4 B

Proposed Weekly Schedule of Work Activities
and Target Group(s) for Extension Personnel
During a Typical Work Week

Weekly Training Schedule

M	T	W	T	F
Farm Visits .M. (CF and IF)	Attended in-service Training (EXT and PT)	Prepare Training Events	Farm Visits (CF)	Training Event (CG)
Assist/Train (PT) .M. Coordination Meeting (PT)		Implement Training Event (CF)	Meeting (promotion, motivation, action planning, feedback, etc.) (CG)	Reports, weekly work plans, materials preparation.

IF = Individual Farmers
CF = Contact Farmers
CG = Community Group (farmers, homemakers, youth, schools, etc)
PT = Para-technicians
EXT = Extensionists and WID Promoters

These weekly work plans will be flexible; however, it is worthwhile to delineate specific group-orientated/participatory activities (i.e. method demonstrations, educational tours) as well as a projected time distribution for working with target groups. The proposed extension outreach schedule will alternate with the training schedule; thus, field level extension personnel, PTs, and project beneficiaries should receive some training on a bi-weekly basis.

New extensionists will be recruited from the ranks of agronomists, foresters "peritos agronomos", social promoters, livestock technicians, and teachers. WID promoters will be recruited from the ranks of teachers, female agronomists, social workers, health workers, home economics/nutrition technicians, and people having small business development skills. LUPE will absorb NRMP extensionists and selected personnel from PTR and MNR extension agencies in targeted expansion areas. In the case of small-scale shrimp production, extensionists will be recruited from those working with PTR in San Lorenzo.

LUPE expansion will require recruitment of at least 240 additional extensionists. Technically qualified extension personnel from existing USAID funded projects (PTR, NRMP, Partners and existing MNR extension agencies) will play a key role in setting-up new LUPE agencies, but the predominate number of new field-level personnel will be PTs. Finally, a minimum of sixty additional WID promoters will be required to meet LUPE field-agency expansion.

5. Paratechnicians

The term paratechnician (PT) by definition will mean field level extension staff having less than a high school degree educational equivalency. Within the existing NRMP and Partners projects extension-level personnel outnumber paratechnicians by a ratio of 4:1. Under LUPE the ratio of extensionists to paratechnicians should attain a ratio of 2:1 by year five of the project. To meet projected staffing requirements a total of 180 PTs will be recruited and trained. Approximately one half of new PTs should be women.

PTs should function as primary technical advisors in order to augment LUPE coverage; however, to function in this role they will need substantial pre-service training and continuous in-service training. Some PTs will be recruited and trained to work exclusively in extension outreach, while other PTs will be trained to work in monitoring and data collection activities. This strategy will help avoid the pit fall of extensionists assigned multipurpose roles (i.e. obliged to conduct outreach,

administrative, data gathering, regulatory input distribution and monitoring activities). It is also more cost effective than delegating data collection/monitoring responsibility to extension level personnel.

PTs will be directly responsible to the agency coordinators; they will collaborate with and receive technical assistance support from extension level personnel, but they will not be subordinates to extension-level personnel.

6. Contact Farmers

As mentioned previously, CFs (productores enlace) will serve as an outreach link for extension activities directed to organized groups and individuals. Since contact farmers are volunteers, there will be no direct line of authority binding them within the proposed organizational framework. Responsibility for providing technical assistance, supervision of demonstration plots and training should be shared equally by extension personnel and PTs. Within LUPE a total of 470 new CFs should be trained by the end of year six (at least fourty percent of new CF trained should be women). This target training goal is not unreasonably high considering that:

- LUPE is projected to operate in ninety extension agencies.
- Many CFs tend to prefer to specialize in one subject-matter area (i.e. vegetables, or basic grains or small animals, etc) and, therefore, each agency may require several.
- Trained CFs will become permanent change agents in the communities where they live.
- Some LUPE PTs will be recruited from the ranks of dedicated CFs.
- At least 190 contact Homemakers (CHs) will need to be trained over this 6 year period.

Since CFs are volunteers they will undoubtably work more efficiently if LUPE provides non-cash incentives such as training and prestige/status, opportunity to conduct on-farm experimentation and demonstration plots, access to credit, and opportunities for advance to the PT category after two or three years of service.

7. Organization at the Extension Agency Level

Organization at the agency level will focus on establishing interdisciplinary teams composed of an agronomist, forester, livestock technician, WID promotor, social promotor, and a processing/marketing/credit promoter. Although each agency team member will have received specialized training in a particular project component area, all will work as generalists in an integrated team approach. For example, the WID promoter will be well versed in basic agricultural and agroforestry practices (with technical support from other team members) so as to be able to promote mixed gardening activities. The agronomist on the agency team will have enough knowledge of nutrition to be able to make basic recommendations about food groups and food preparation techniques related to vegetables, tubers and fruits. Skills transfer within the agency will be promoted by intra-agency training, "paired visits" (team members of different speciality areas working together in the field) and periodic in-service training provided by technical specialists, training coordinators, and others.

Personnel will be assigned to each agency according to certain education levels: a five year degree person as agency coordinator one or two three year degree position, one or two staff position with minimum high school equivalency, and two PTs (local recruits without high school equivalence, but literate and adequately prepared through pre-service training courses). The balance of differing educational levels will tend to promote harmony within the group dynamics of a given agency, whereas an imbalance (i.e. 3-4 degreed technicians and two PTs) might foment "we" vs. "they" discriminatory attitudes. On a gender basis, one or two members of local agency staff should be women.

III. RURAL COMMUNICATIONS AND EXTENSION MATERIALS DEVELOPMENT

A. A Review of Experience to Date

Effective Communication with farmers and other target beneficiaries will be critical for implementing the proposed "farmer up" LUPE extension methodology. LUPE participants need information to take advantage of improved technologies. They also require communication mechanisms by which they can express felt needs and provide feedback concerning LUPE project activities. CTTA, IPM, Partners, World Neighbors, PTR and NRMP all have different experiences in communicating with farmers and the diversity of their approaches will be explored and shared by LUPE.

CTTA has initiated a methodology for developing communications media (i.e. radio, audiovisual aids, and printed materials). The steps in this process include: investigation, selection and design of communication strategy, testing in the field and modification, production, delivery, reception (adoption of new technologies), feedback, and evaluation. Some lessons learned from CTTA radio program are: 1) Avoid paternalistic script writers (i.e. radio dialogues in which the "expert" extensionist tells "José" farmer what to do. This format sends a subtle message that extensionists know everything and farmers are dumb; 2) Messages on pesticide application should be accompanied by messages on pesticide safety and IPM; 3) Radio, by itself, is not very effective for transferring key messages. When used in combination with other techniques/media (i.e. follow-up farm visits, radio discussion groups, etc.) it can be a powerful communications tool; 4) Radio messages (like written materials) should be field tested for impact, comprehension, etc. before mass broadcasting.

The PTR project has worked with a systems approach (<u>enfoque de sistemas</u>) to enhance communication among farmers, extension personnel and researches. In the <u>enfoque de sistemas</u> approach the farm, the household, and the rural village are treated as a whole system rather than as separate entities. Within this methodology the system must first be understood through the farmer or rural householder who lives there, and problemas must be identified in terms of his/her felt needs. In conjunction with coming to understand problems through the eyes of the local resident, the PTR <u>enfoque de sistemas</u> approach permits identification of the distinct production systems and circumstances which exist in each region of the country. Thus, specific technologies can be designed which are appropriate to each region, Final steps in the process include field testing, farmer feedback, modification, promotion, and adoptation.

The NRMP has also used an enfoque de sistemas approach similar to that used by PTR to encourage "farmer-up" communication and for identifying constraints to production. Within the NRMP improved technical packages are extended through the use of project produced media such as: slide shows, filmstrips, permanent-print flip charts and farmer pamphlets. NRMP also developed a library of more than 5,000 slides and has the capability to produce Honduran specific technical and motivational filmstrips from slides.

The Integrated Pest Management (IPM) Project has conducted research activities to begin to determine how indigenous farmers develop new technologies on their own and to validate the effectiveness of sophisticated and unsophisticated media in enhancing learning retention by semi-literate farmer groups. Lessons learned from the IPM Project include: 1) Indigenous Innovators: Researchers have much to learn from innovative farmers who as "natural scientists" should be actively encouraged to develop simple on-farm experiments. IPM believes that technicians should work side by side with these innovators to develop cost effective and farmer relevant improved technologies; 2) Impact of Different Teaching Media on Learning: IPM Project investigations indicate that there is no improvement in learning retention by employing shophisticated media (i.e. slide shows or fotonovels) as opposed to more direct methods when training semi-literate farmer groups. A talk (charla) followed by field practice was found to be just as effective as the former two media followed by field practice. (see Andrews et.al, 1988).

B. Objetives

The primary objective of the LUPE communications component is to develop, test, and deliver integrated communication strategies and media that will augment the impact of each specific project component and improve the delivery of extension services. A second objective will be to strengthen linkages at several project levels (i.e. between LUPE and other projects agencies and PVOs, between extensionists and farmers, between beneficiaries and input/service providers, etc). A third objective will be to train extension personnel in the basic skills of rural communications.

C. Implementation Approach

Communications in LUPE will focus on four principle areas: project promotion, mass communication via radio programs and radio spots, written materials geared to contact farmers (CFs), paratechnicians (PTs), youth, and school age children, and

training for extension personnel (all levels) in how to communicate with farmers. Selected CTTA personnel will be absorbed by LUPE in order to tap their experience and continue program already initiated.

1. Promotion of the LUPE Project

LUPE will have a strong promotional/public relations program in order to: 1) alert existing and new target groups of what the LUPE project is and how they can benefit by participating; 2) promote improved communication and interaction between LUPE and other projects and agencies. This will be accomplished by developing promotional campaigns, aggressively disseminating project results, airing radio spots, and by creating posters, photocopied one-page flyers, newsletters, logos, and project component slogans.

2. Radio Programs

Development of radio programs should follow the CTTA process of: "farmer-up" investigative research, program (spot) development, pre-testing, broadcasting, monitoring, evaluation. However, the LUPE Project should have full control over theme development including such considerations as: technical content, cost relevancy for potential farmer adoptation, non-paternalistic messages, and environmental compatibility of the projected theme. Extension promoters will reinforce radio programming through such activities as small group discussion circles or study groups (circulos de oyentes), village theater or dramatization, in-depth subject matter specific cassette recordings, and case studies (read aloud or pre-recorded). As stated previously, LUPE will develop an internal capability to dictate both content and format for message development.

3. Technical Written Materials

It is not recommended that LUPE devote scarce resources to developing written materials for semi-literate and illiterate target farmer/homemaker groups. Written publications should be developed, however, to provide back- stopping for PTs and CFs both in technical content areas and in skills for motivating, organizing and working with groups, and extension. Some written materials will be also developed for youth groups and for school children (i.e. literate target groups). These latter materials could be developed in collaboration with the USAID Funded Primary Education Efficiency Project. Some examples of appropirate media that can be developed for these groups include: "how to" pamphlets, one page technical field-sheets, mini-flipcharts on improved technical practices and picture stories used as motivational tools (i.e. to stimulate discussion and promote attitute/behavior changes).

4. Training in Production and Use of Low-Cost Media for Stimulating Beneficiary-Participation.

Strategies for media development will place more emphasis on producing low cost materials that can be made locally, such as: sock, stick and finger puppets, educational bingo, and other games, flannelboard and cut out figures, flexiflans, simple models, and the natural environmental. A more complete list of media is found in Annex ID. LUPE graphic arts and training staff will follow specific selection criteria (Annex IE) for identifying and field testing prototype media. A training module on low cost media production and use will be elaborated and tested by year one. In the training module the Experiential Learning Model (ELM see Annex IC) will be utilized as the methodological tool by which media are linked to the participatory education process for motivating and teaching semi-literate learners.

IV. PARTICIPATION OF WOMEN IN LUPE

This sub-section provides some detail on the situation of the Honduran rural woman, but in itself is not intended as a separate WID component. Clearly there should not be a gender specific component in LUPE, but rather women's issues should be addressed within each separate component in order to achieve an overall integrated approach.

A. Review of Experience to Date

Lack of baseline socio-economic and census data make it difficult to concisely elucidate the present situation of women residing in rural areas of Honduras. However, field observations indicate the following endemic problems of the rural Honduran woman:

1. Low education levels and little or no access to educational opportunities.

2. Poor nutritional status (anemia, vitamin A deficiency, etc).

3. Limited access to credit (due to discrimination, lack of material wealth to be used as collateral, husbands required as co-signers for loan authorizations).

4. Little or no access to other key resources (land, labor, capital, information, technical assistance).

5. Little or no support for confronting maternal-child care problems.

6. Complaints of minor mental health disorders ("nervios, "alta presion", depression, excessive boredom).

7. Limited opportunity to share experiences and activities outside the nuclear family due to cultural and social pressures (i.e. lack of personal growth opportunities).

8. Limited leisure time and extremely limited access to diversionary activities.

9. Low self-esteem and limited self confidence due to social and cultural pressures/values.

Clearly for LUPE, there is a relationship between the integration of women in productive activities and the long term success of the project. Women, as semi-permanent or permanent

heads of households are involved in hillside agriculture. Woman play a critical role in post-harvest management and marketing systems. Woman are involved in animal husbandry and pastures management since they care for small domestic animals (especially swine, goats, and poultry). Woman are actively involved in the processing industries (especially shrimp and cashew in the Choluteca area).

On-going AID funded projects address women's participation as an integral component of their implementation strategy. PTR has attempted to deal with women's issues through its Rural Household (Hogar-Rural) program which addresses: health and nutrition issues, home construction improvements (i.e. improved cook stoves, latrines, kitchen drainage systems, wall divisions etc) and appropriate technology (soap making, manual corn shellers, solar dryers etc). NRMP has worked with 5,355 women organized into 313 groups as of June, 1988. Within the NRMP women constitute 37% of the total number of project beneficiaries. NRMP's Asistencia a la Mujer program conducts the following activities: improved cook stoves, home gardens and nutrition, home improvements, latrines, small animals production, and promotion of micro-enterprise projects (very few projects actually implemented). The Partners program has focussed on promotion of nutrition, home gardens, hygiene and home improvement, improved cook stoves, community first-aid kits and small business development skills. They have also proposed to train 50 contact Homemakers (CHs) between 1986-1989.

Based upon the problems alluded to previously these projects clearly are only meeting some of the identified needs (i.e. problems 1, 3, 5, 6, 7, 8 and 9 have not been, or have been only partially, addressed). Within the present WID programs women have been treated somewhat as "objects" of the development process and not as active participants. This is to say that many WID activities have been imposed by "outsiders" who have basically assumed that emphasis on traditional approaches (i.e. nutrition, stoves, gardens, latrines) was sufficient to justify that they were doing "something".

B. Objectives

The overall objective of women's participation in LUPE should be:

1. To strengthen the rural woman's capability to participate productively in economic activities that generate increased household income while at the same time meeting her needs as mother and homemaker.

2. To increase her general socioeconomic wellbeing.

3. To enhance her personal skills, self perception and self-esteem through participatory educational and training opportunities that openly reflect expressed needs.

4. To promote administrative policies that permit women adequate job and promotion opportunities within LUPE staffing.

C. Implementation Approach

A brief list of suggested activities follows:

1. Recruit, train and hire proportionate numbers of women trainers, supervisors/coordinators, WID promoters and PTs as there are Project Female beneficiaries. (i.e. if NRMP states that 37% of all beneficiaries are women, then this statistic should also be reflected within the institutional gender ratios).

2. Emphasize the collection of baseline data on rural women's socioeconomic situation (i.e. physical and metal health, education level, participation in formal and non-formal production activities, role in the farm enterprise, access to technical assistance and other resources, etc).

3. Implement novel credit schemes that allow women to participate in income generating activities without being required to have husbands to act as co-signers for loan authorization (i.e. loans to organized groups, "support" group loans, community based loan service centers providing credit in the form of inputs.

4. Create educational programs and continuous technical assistance in small business enterprise skills development.

5. Set up a program of contact homemakers (CH) similar to the existing contact farmer program under NRMP in order to provide intensive training, specialization and development of permanent community based resource persons competent to deal with women's issues.

6. Foment the rural woman's personal skills development by promoting educational activities in self-awareness, communication skills, leadership, conflict resolution, needs assessments, problem analysis, action planning, team building, etc.

7. Develop specific training modules for male and female extension personnel designed to train them in how to integrate women and women's issues in their programming and activities.

8. Promote income generating activities similar to those piloted by NRMP, PRT and Partners, Pueblo a Pueblo- Some preliminary ideas include: cashew and peanut processing, clothing manufacture, toy and doll manufacture, fruit, herb and vegetable drying, herbs and spices production for export to companies such as Erewon, Celestial Seasonings, McCormick, etc., candy manufacture, bread/pastry manufacture, small animal production and processing activities (poultry products and swine) flower and ornamental production for local and export markets, production of grafted fruit trees for commercial sale, home canning of jellies, fruits and pickled vegetables, ceramics production.

9. Promote home centered mixed gardening techniques and nutrition education activities - LUPE will focus away from high cost-input vegetable gardening which requires the purchase of seeds, sprayers, and pesticides. LUPE will emphasize the cultivation of traditional crops which are easier to grow (i.e. less diseases and insect pests), require a minimum amount of inputs, and whose production practices are already well known among rural Hondurans (i.e. crops such as sweet potato, cassava, coriander, cabbage, onions, yams, plantain, banana, fruit trees, local spinaches and leafy vegetables, cowpeas). Nutritional aspects will focus on different ways to prepare traditional foods.

10. Promote specific extension activities that encourage men and women to participate together in organized groups to resolve community problems. (This approach is different from the NRMP methodology of promoting separate men's and women's groups.)

11. Create local "farmers'/artisans' markets" (<u>mercado dominical</u>) organized by LUPE, but run and controlled by women in order to provide more equitable marketing outlet opportunities for women producers, processors, and hawkers. LUPE should establish these markets and provide modest funds for promotional and public relations related activities that stimulate public interest and support.

V. BENEFICIARY PARTICIPATION IN LUPE

A. Review of Experience to Date

Both NRMP and Partners have successfully involved community members in the extension process by promoting local participation in: community needs assessments, development of annual work plans, training/utilization of CFs (see Extension Methodology Section II).

Five critical areas in which extension programs should seek participation by local beneficiaries are:

1. Problem identification/needs assessment at the community level.

2. In put into the planning and programming of extension activities.

3. Involvement in the identification of new/improved technological innovations.

4. Feed back on the effects of newly tried technologies (i.e. farmers can identify certain problems/limitations that may interfere with their adoption new technologies, thus providing guidance for further experimentation and extension.

5. Evaluation of the effectiveness of extension personnel and extension outreach programs.

B. Objectives

The overall objective will be to create an extension outreach service that encourages and supports the active participation of men, women and the rural family, in general, in LUPE implementation. A second objective will be to standardize mechanisms at the extension agency level that will enhance "dialogue" between project participants and extension personnel.

C. Implementation Approach

Central to the LUPE extension methodology will be the concept of "farmer up" participation and input into extension diagnostic, planning, outreach, and evaluation activities. The term "farmer up", however, does not restrict itself to just men farmers, but refers to active participation by women, youth, and

school age children. As part of LUPE's approach to promote the participation of beneficiaries, the project will develop the following activities.

The Role of Paratechnicians. As a general policy PTs will be hired from within the general vicinity of the LUPE extension agency, thus avoiding as much as possible the use of "outsiders". Some PTs will be recruited from the ranks of dedicated CFs and CHs. PTs will help develop community diagnostic characterizations, will promote dialogue between local participants and extensionists, will assist in adapting technical innovations at the local level, and will provide feedback on project impact and beneficiary adaptation. These activities will complement their specific task of providing direct technical assistance at the community level.

The Role of CFs, CHs and Community Groups. CFs and CHs will receive both technical and group communications training thus assuring that they have practical knowledge of improved technologies, while at the same time being able to mobilize local community members to participate and express felt needs. CFs and CHs will also establish local advisory committees that will collaborate in elaborating yearly and monthly extension agency work plans, and provide feedback on the impact and adoption of improved practices. Farmers and homemaker groups will also conduct LUPE project impact evaluations on a quarterly basis that will serve to: 1) provide feedback for modifying/improving training and extension outreach activities, and 2) evaluate the performance of local extension personnel. Evaluation meetings will be conducted by the agency coordinators and should involve supervisory personnel on a "spot check" basis.

Community Characterizations and Needs Assessment Studies. LUPE extension personnel will utilize the "Metodologia de Diagnosticos" and the "Manual Practico de Extension" developed by NRMP as guides for conducting community needs assessments. The former document indicates what basic data should be collected and the latter presents a methodology that encourages active community participation in the diagnostic process. Other participatory diagnostic tools that can be used by LUPE include focus groups, on-site observation/interview verification technique, and community "feedback" groups. The "Diagnostico Participativo" currently being developed by CTTA may be another useful tool for promoting local participation.

Indigenous Innovators. LUPE will encourage innovative small farmers, artisans, and entrepreneurs to experiment with village generated ideas/practices appropriate for developing cost effective improved technologies. CFs and CHs, in particular, will be encouraged to conduct experiments and will receive modest

inputs to support indigenous investigative activities.

Farmer Interaction Days and/Mobile Seminars-(Seminarios Moviles). NRMP successfully employed the mobile seminar as a technique for "cross-fertilization" and technical exchange between two natural resources management projects. Under LUPE the mobile seminar will be utilized to exchange ideas and information between groups of farmers from distinct geographic regions. Another variation on this technique will be to form farmer and LUPE staff teams that would interchange technologies and methodologies with other projects (either in-country or abroad).

Participation of Youth. LUPE will implement basic CF and CH technical and group communication training courses targeted to young men and women in order to provide educational opportunities for potential future leaders at the community level. These trained adolescents will subsequently act as collaborators to promote, organize and guide local youth groups (preferably mixed groups). Guidance to organize and manage these groups will be provided by the agency social promotors or U.S. Peace Corps Volunteers (4H club promotors).

Participation of Schools. Since the Ministry of Education requires primary schools to implement curriculum in agriculture and forestry LUPE extension agency personnel will implement some or all of the following activities at the grade school level: promotion of school gardens, and forestry/fruit tree nurseries, educational talks and campaigns on specific topics (i.e. reforestation, nutrition, environmental education, soil conservation, etc), teacher training in agriculture and forestry, development of simple written study materials for primary schools. These activities can also be implemented by working with the Peace Corps 4-H club promotors.

VI. TRAINING FOR PROJECT PERSONNEL AND PARTICIPANTS

A. Review of Experience to Date

Training is an integral part of extension delivery services and in the NRMP it was acknowledged as a priority activity. The NRMP was very successful at implementing training events and courses in the technical content areas. It also a attempted to focus training on how to work with and motivate groups. Clearly the most appropriate strategy of NRMP training efforts was the CF program. Not only were CFs trained, but also extension personnel received orientation workshops on how to effectively supervise/utilize CFs at the community level. As testimony to the effectiveness of this training program one hears CFs pronounce detailed technical descriptions on such topics as soil organic matter, minimum tillage practices construction of contour rock wall barriers, etc.

Another element employed by NRMP was the "learn by doing" approach or on-the-job-training. This type of training for CFs and PTs focused almost exclusively on in-the-field activities while training for extensionists having higher educational levels focused on a blend of theory and practice. The method used to implement this strategy was training of trainers. TS at the central office level were trained as subject matter trainers. Similarly, extensionists were trained to train CFs and other farmers to carry out improved technologies.

NRMP extension staff had the responsibility of conducting training needs assessments and of developing yearly training plans. While this strategy may be effective for identifying staff training needs, it clearly detracts from important aspects of extension planning, programming and supervision. During much of the NRMP project the extension coordinator was responsible for extension training, and materials development (i.e. graphic arts production.). The long-term extension advisor also "wore two hats" (i.e. responsibility for extension and training activities).

LUPE will have the advantage of a start-up in which trained and experienced personnel are already "on board". However, the pressure to expand to sixty new agencies, the variety of subject matter topics to be transferred, the continued emphasis on utilization of CFs (also CHs) and the new direction/strategy of employing numerous PTs all indicate that training will require a high priority in order to assure successful implementation of LUPE.

B. Objectives

The primary objective of training within LUPE will be to capacitate project beneficiaries in the technology packages developed. A second objective will be to train a group of permanent resource persons (CFs, CHs, PTs) at the community level to act as local change agents in the technology transfer process. A third objective will be to provide pre-service and on-going in-service training to all LUPE staff. A final objective will be to train all extension outreach staff in the utilization of the Dialogue Methodology Approach and the Experiential Learning Model in order to stimulate beneficiary project participation.

C. Implementation Approach

1. Trainin. at the Project Staff Level

In order to guarantee that a broad spectrum of subject matter fields (ranging from technical, to management, to farmer and group communications skills) are delivered and that the various levels of staff and LUPE beneficiaries receive training, a permanent training division will be established. The training division will work in collaboration with a long-term training advisor. The training division will have strong linkages with the division of extension, materials development and with the TS. A cadre of specialists (training coordinators) will be needed to staff this division (see Extension Component Organizational Framework).

The process of developing and implementing skills training for LUPE staff will proceed as follows:

- Field personnel express their training needs in annual evaluations.
- Training staff consults with supervisors and TS on training needs of field personnel and the timing and methodology for training events.
- Training staff develops and circulates a project wide staff training plan for the year.
- TS, supervisors, project directors, and training staff meet to discuss, prioritize and modify the plan.
- Training staff conducts the training events or assists the specialists in design, elaboration of course content, programming and evaluation of courses.

2. Training at the Participant Level

CFS and CHs will be trained at semi-permanent and permanent training centers supported by LUPE. The Project should commence with an aggressive program at this level in order to develop a large cadre of local change agents capable of conducting voluntary community extension outreach activities as an adjunct to the efforts of extensionists and PTs

The process for developing CF, CH and farmer skills training programs will proceed as follows:

- Extensionists, PTs and CFs/CHs work with individuals and community extension advisory committees to identify local training needs.

- Participants/beneficiaries training needs are outlined in the local agency's annual evaluation document.

- Training staff develops participant/beneficiary training plans on a sub-regional or regional basis for the upcoming calendar year.

- On a regional basis T.S., supervisors, agency coordinators and training staff modify and prioritize the plan.

- Training coordinator, and training advisor finalize and approve each plan.

- Training staff assists TS, agency coordinators and extension personnel in the planning, conduct, and evaluation of training events.

3. Training Methodology

People tend to teach or train others using the methodology by which they were taught (ie if a person learns by being lectured to, he/she will probably use lectures as the main teaching tool when training others). Given this situation, it is critical that LUPE utilize The Dialogue Methodology Approach (Annex IB) and the Experiential Learning Model (Annex IC) as the basic tools of training with the intent that these methodologies will be employed by LUPE personnel when training PT's, CF's and farmers.

Agricultural related training modules developed should also reflect the following characteristics:

- Experience first approach to learning: each training session springs from a tangible immediate or previous experience. The entire training follows the ELM both in individual lesson plans and as an entire learning experience. For example, the first activity in a vegetables course will be planting; in a livestock course it will be planning and building animal shelters or caring for animals.

- Competency based: Progress is measured by individual attainment of measurable skill performance objectives, not by written tests and grades.

- Problem solving: Skills and knowledge are geared toward solving real life problems. For example, the use of situational exercises helps keep training job-orientated, and places learners in active and stimulating roles.

- Independent Study: Participants have responsibility for meeting some of their own training needs through individual crops plots and care/feeding of animals, self help tutoring and review, as well as some peer directed training sessions.

- Practical agriculture: Training emphasizes "hands-on" field work because there is no substitute for field experience, and therefore training emphasizes specifics over ideas/concepts.

- Bring the classroom to the field: Most sessions dealing with crop and animal production will be more effective if done in-the-field - the ideal learning laboratory- rather than in a typical classroom setting for three reasons: 1) trainers can immediately illustrate, clarify, and reinforce technical skills and concepts with actual field examples; 2) it facilitates the desirable integration of technical, "hands-on" and observation skills needed for extension work, and 3) it provides a training model well suited to skill transfer activities with small farmers.

- A model of development work: Most importantly, training should be designed to be a conscious model of development, a problem posing dialogue resulting in practical choices, learning and work.

4. Institutionalization of Training

Following the standard NRMP approach all new employees will receive pre-service training of approximately three weeks and existing staff will receive continuous in service training. Field personnel will receive a minimum of twelve (12) days of in-service training per person per year. Support, administrative and service staff will receive a minimum of six (6) days of training per year.

5. Training Centers

LUPE will continue to use the MNR regional training centers, to conduct training events. The project will provide enough equipment, materials, and supplies to enable these centers to implement the LUPE training methodology. A temporary training facility was operated by NRMP in Minas de Oro, Comayagua. This community has two small hotels, electricity and potable water, is accessible and is also centrally located with relation to projected LUPE expansion. The temporary facilities found at Minas de Oro should be renovated to include two roofed (open air) classrooms (capacity 20-30 people each), and refurbishing of: dormitory facilities to house 25 participants, a kitchen and cafeteria, staff house to accomodate five trainers and a small office. As LUPE expandas, it should seek to upgrade training facilities in other regions as needed.

6. Training of Trainer (TOT) Courses

The development of a cadre of knowledgable and competent training specialists is essential for conducting training at so many different educational levels and in such a diverse array of subject matter topics. Conduct of TOT courses at various levels will help to standardize a systematic approach to the delivery of training events. The introductory TOT course content will include the following: basic principles of adult learning (Andragogy), utilization of the Experiented Learning Model, the training process (see Annex IA), trainee needs assessments, task analysis, development and use of competency based instructional objetives, training evaluation and feedback, selection and use of training methods, media, and group dynamics techniques, facilitation and co-facilitation skills, development and implementation of lesson plans. A proposed introductory TOT course design is presented in Annex IG.

IN-COUNTRY TRAINING NEEDS

1. Skills Training Needed by Extension Personnel to Provide Training to Project Beneficiaries

PARTICIPANTS	SKILL[illegible]RAINING NEEDED
ALL	I. Communication skills (Dialogue Methodology Approach - DMA, effective listening and paraphrasing skills, techniques for communicating with illiterates).
ALL	II. Human relations skills (dealing with clients and peers, feedback, conflict resolution, etc.).
ALL	III. Team building skills (to encourage inter-disciplinary and integrated extension agency outreach approach)
ALL	IV. Introductory TOT course
TRAINERS, TS, SUP.	V. Advanced TOT course
TRAINERS, EXT., PTs.,	VI. Group Dynamics techniques- ("Energizers", "Icebreakers", etc)
TRAINERS and EXT.	VII. Preparation and use of low cost participatory educational media.
EXT., PTs.,	VIII. Group motivation and consciousness raising skills.
SUP., AG. COORD. EXT., PTs.	IX. Use of the DMA and ELM in conjuction with LUPE extension methods.
SUP., AG. COOR.,EXT., PTs.	X. Utilization of the Agricultural Extension Manual Developed by NRMP ("Manual Practico de Extension")
EXT., PTs.,	XI. Identification and training of local leaders
AG. COORD., SUP.	XII. Supervision of Extensionists and para-technicians.
EXT., PTs.,	XIII. How to supervise contact farmers.
EXT., PTs	XIV. Short courses in group promotion, organization, consolidation (to make local GROUPS more participatory and active in terms of needs assessment, decision making, action planning.

2. Technical courses for fame and female extension personnel in hillside agro-livestock production:

- Forest management protection
- Reforestation
- Establishment and management of demonstration plots
- Establishment and management of forest and fruit tree nurseries.
- Production and use of organic fertilizers and green manures.
- Production of basic grains
- Data collection and monitoring
- Mixed gardens and nutrition
- Fruit tree production
- Horticulture/vegetables production
- Small animals (swine+poultry)
- Animal health (vaccinations preventive veterinary practices)
- Improved pastures/grazing management (grasses + legumes)
- Agroforestry techniques
- Soil conservation
- Integrated pest management (IPM)
- Forrage conservation (silage and hay making)
- Beekeeping
- Silvo-pastoral management
- On-farm experimentation

Skills Training Needs by CFs CHs to Provide Training to Project Beneficiaries

- Groups skills
- Groups dynamics techniques
- Group motivation and consciousness raising skills
- Use of simple extension methods and media
- Group promotion, organization, consolidation
- Leadership skills (needs assessments, decision making, action planning, follow-up, etc.).

Technical Courses for CF and CH in hillside agro-livestock production.

Same as for extension personnel except for data collection and monitoring.

SKILLS TRAINING-PROCESSING/MARKETING COMPONENT

PARTICIPANTS	SKILLS TRAINING NEEDED
	I. CREDIT
BANK OFF. LUPE CREDIT OFF. PVOS	- Benefit/cost analysis for technologies to be applied - Project feasibility evaluations - Evaluation of credit worthiness
	II. PROCESSING AND TRANSFORMATION
UDA LUPE EXT/PROM PVOs PROMEC PRODUCERS CH	- Post harvest management - Food Preparation/processing - Spices and seeds processing - Solar Drying - Grading and packing technologies - Medium scale processing technologies (coffee, rice, corn, forages etc).
	III. MARKETING
LUPE EXT/PROM. PVOS	- Grading, classifying, cleaning and packing technologies - Local and regional seasonal price analysis - International market specifications/regulations for export products
	IV. HOME TECHNOLOGIES
CH LUPE EXT/PROmM WOMEN	- Home food preparation - Food hygiene, storage and drying
	V. RURAL ENTERPRISES
CH LUPE EXT/PROM. WOMEN	- Processed Foods - Jellies, juices, pickled products - dried fruits and vegetables - Cashews and peanuts - Cheese and candies - Baked goods
	VI. PLANTS AND FIBERS
WOMEN CH LUPE EXT/PROM	- Ornamentals and flowers - Plant arrantements - Dried flower - Spices and seeds (achiote, manzanilla, cinnamon, anis, allspice, black pepper, chile tabasco, etc.) - Flower and vegetables seed production

PARTICIPANTS	SKILLS TRAINING NEEDED
	VII. HANDICRAFTS AND ARTISANRY
WOMEN	- Dolls and toys
CHs	- Luffa sponge articles
	- Ceramics (dishes, pots, vases etc)

SKILLS TRAINING-MARICULTURE COMPONENT

PARTICIPANTS	SKILLS TRAINING NEEDED	
LUPE EXT. PCVs	I	TOT Courses
	II	SHRIMP PRODUCTION
LUPE EXT. PCVS PRODUCERS CFs		- Pond production and management - Stocking, feeding and fertilization procedures - Water control and Pump Mechanics - Algae measurements - Disease and predator control - Pond-side harvest technologies to improve product quality - Post larval collection, transportation and acclimatization to reduce larval mortality - Networking to enhance market entry
FHIA		- Water quality data collection
FHIA		- Feed quality monitoring
	III	PROCESSING AND QUALITY ASSURANCE
PLANT WORKERS		- Packing plant product quality control measures
FHIA		- Methods to assess product quality
REG. AGENCY PLANT WORKERS		- Monitoring of quality control (inspection procedures, plant hygiene, insect control, presence of histamines)
	IV	DEVELOPMENT OF COROLLARY HIGH VALUE PRODUCTS
CFs PRODUCERS LUPE EXT.	A	- Shellfish and Oysters - Production techniques
PROCESSORS		- Processing and packing
	B	- Artemia (brine shrimp)
PRODUCERS CF LUPE EXT.		- Methodologies of biomass production
PROCESSORS		- Drying and packing for export.

VII. COMPONENT OUTPUTS

By PACD the following outputs are expected under this component:

- Incorporation and training of 50,000 project participants formed in approximately 2,000 groups.
- Pre-service and continuous in-service training for a total of 280 extension personnel and 180 paratechnicians.
- Incorporation and training of 540 contact farmers and contact homemakers.
- A total of 90 extension agencies implementing LUPE extension and training methodologies.
- Conduct of 5,500 demonstration plots and concomitant educational tours.
- Delivery of 13,700 method demonstrations
- Production and broadcasting of 2,500 radio "spots" and technical messages.
- Development and production of forty (8-10 minute duration) farmer level group study cassette tapes.
- Production and distribution of at least 6,000 promotional posters covering thirty themes.
- Production of promotional flyers on twenty (20) different themes.
- Production of a quarterly project newsletter by year two.
- Development and production of 27 different mini-flip charts and/or picture stories for use by extensionists, PTs, CFs/CHs.
- Elaboration and production of a minimum of 40 technical and extension methods pamphlets directed to PT and CF/CH educational levels.
- Elaboration and production of a minimum of 40 different bulletins, pamphlets and technical manuals directed towards extension level personnel.
- Development and dissemination at the agency level of a minimum of twenty (20) low-cost, locally produced educational teaching/training media.

VIII. COMPONENT INPUTS

This component will require 96 person months of long-term technical assistance involving two advisors: 1.) integrated resource development extension (48 months), and 2.) training development (48 months).

Short-term technical assistance will require ten (10) person months in the following: extension, materials and media development, groups/cooperatives formation, training curriculum development, and training of trainers (TOT).

$ 1,000,000 - Pre-service and in-service training for project extension and related support services staff (includes costs of annual project evaluation events).

$ 225,000 - Fifteen specialty seminars, work shops and inter-project exchanges at a cost of $15,000 each.

$ 2,100,000 - Extension and training materials, equipment, supplies, manuals and publications and contracted services.

Total Budget = $ 3,325,000

ANNEX I

Specific Extension/Training Procedures Methods, and Techniques

ANNEX I A

THE TRAINING PROCESS

1. Diagnosing Needs

   Determine:

   1. What training the community or agency needs
   2. What trainee already knows
   3. What job trainee will be expected to perform

2. Setting Goals

   Write down what trainee should be able to do after training

3. Developing Strategy

   1. Select training techniques
   2. Prepare lessons plans
   3. Create learning climate

4. The Training/Learning Act

5. Inservice Training

   Reassess decisions made in steps 1,2,3, & 4 and repeat step 4

5. Evaluating for Behavioral Change

7. Observing On the Job

8. Gathering Feedback to Redesign the Training

ANNEX I B

DIALOGUE METHODOLOGY APPROACH TO EXTENSION

Dialogue Methodology can be defined as an attitude/behavior in which the extensionist works with the farmer as an equal partner to identify and solve specific technical problems and socio-economic limitations. In this process the extensionist respects the views, ideas, opinions of the farmer, listens more than he talks, employs a Socratic approach to stimulate dialogue, uses the farmer as a resource to produce "indigenous solutions", and never imposes his/her own opinions or ideas as being "right". In this process some questions that the farmers and extensionist might ask themselves are:

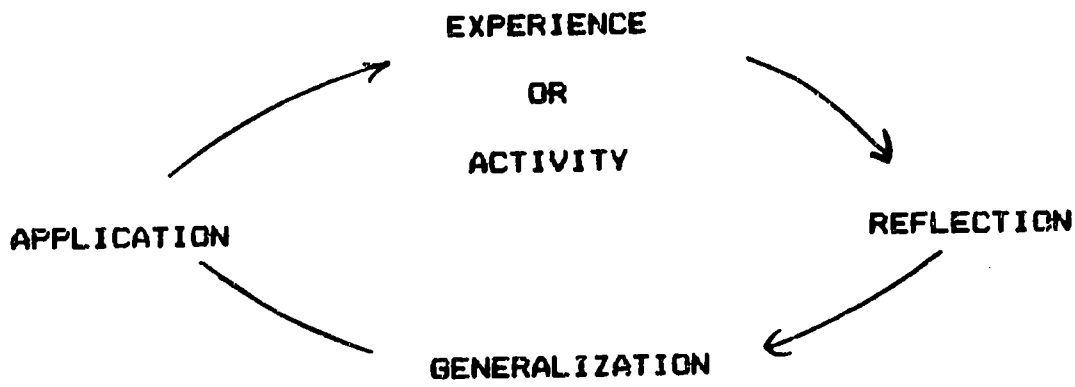
- What is the problem?
- How is it affecting us?
- What solutions have been tried previously?
- Why did these solutions work? Not work?
- What resources (human and material) are available to solve the problem now?
- Who is willing to help in finding a solution?
- What solutions are available (Brain-storming)?
- What are the best solutions? (Prioritize)
- What alternative (contingency) plans can be made, if the proposed solution fails?
- Who is willing to act in implementing the solution?
- What follow-up needs to be carried out to assure success?

ANNEX I C

THE EXPERIENTIAL LEARNING MODEL

One tool/teaching method used to effectively elicit "dialogue" and farmer participation when working with groups is the Experimental Learning Model (ELM). The ELM is an inductive learning process in which specific activities and situations are created for participants to "experience" directly; subsequently they discuss (under the guiadance of a facilitator) their observations and reactions, draw conclusions, and act upon what they have learned. The ELM is diagrammed and explained below:

THE EXPERIENTIAL LEARNING MODEL



Step I <u>Experience or Activity:</u> Farmers (participants) might be instructed to: share actual experiences, participate in an activity, observe a process, construct something, participate in an educational game, etc.

Step II <u>Reflection:</u> Farmers are asked to analyze (reflect-upon) the activity or experience they have just participated in. Here open-ended questions are presented in order that the group may express observation behaviors exhibited, feelings, frustrations, reactions, felt attitudes, etc.

Step III <u>Generalization:</u> Farmers are asked to draw conclusions, to state what they learned, to list general principles.

Step IV <u>Application:</u> Farmers are asked how they would make

An example may help to illustrated the process involved in the Experiental Learning Model. Suppose that farmers indicate that unavailability of chemical fertilizer or prohibitively high prices are affecting crop yields. Suppose also that the extensionist knows of a contact farmer who has made and applied compost. The group (including the extensionist) brings together all the necessary materials to build a compost pile. The stage is set for implementation of the four steps of the model as diagrammed below:

ACTIVITY/EXPERIENCE

Group is directed to build a compost pile

Reflection

1. What did we do?
2. What else did you observe?
3. What tasks were easily performed?
4. Why were materials chopped into fine pieces?
5. Why was the pile built to a certain size and height?

Generalization

1. What did you learn from the activity and follow-up discussion?
2. What are the necessary steps to building a compost pile?
3. What 5 things must be done to assure rapid decomposition of the pile?

Application

1. How can you use what you learned today on your own farm or plot?
2. How can what we learned today be shares with
3. Who wants to build a compost pile on his/her own farm?

Further observations of how the model work are:

1. Teaching/training is participatory and always starts with an ACTIVITY to get people involved. This first step is in exact opposition to traditional teaching/training in which invariably an "expert" presents a talk to a passive group.
2. The activity by itself is not very effective unless it is processed by the trainer/extensionist. The REFLECTION,

GENERALIZATION AND APPLICATION steps (depicted below the dotted line) are the necessary components to processing the Activity.

3. In the processing phase (REFLECTION, GENERALIZATION, APPLICATION) information and conclusions come from the group itself and "right" answers are never imposed by the trainer/extensionist.

To accomplish this the trainer/extensionist must be skilled in the use of open-ended questions (i.e questions which require participants to express observations, ideas, opinions, etc), versus closed-questions (i.e. questions that usually elicit only "yes" or "no" or one word answers. Since the objective of the processing phase is to stimulate active group discussion, closed-questions should be avoided as much as possible. In the compost pile example presented here all of the questions employed are open-ended except question number 3 in the APPLICATION step: "Who wants to build a compost pile?" elicits a one word answer and is really only useful for determining who might need follow-up help in making compost.

4. The APPLICATION step does not necessarily restrict itself to just responding to questions, but can also include related follow-up activities. Following the example presented for composting, APPLICATION steps could possibly include: 1.) coming back 3-5 days later to check if the pile is heating up, 2.) turning the pile at specific intervals, 3.) sampling to detect when the compost is ready for use,

4.) application of compost. These four supplemental ACTIVITIES could also be processed themselves by generating REFLECTION, GENERALIZATION and APPLICATION questions.

In summary, the Experimental Learning Model is the cornerstone of participatory learning. For Extensionists who truly desire to avoid the traditional "top down" one-way communication approach, it can be a very powerful tool.

ANNEX I D

A partial List of Participatory Media

- Educational Games
- Educational Bingo or Lottery
- Puppets (finger, stick, sock types)
- Flannel board and figures
- Flexiflans
- Picture Stories
- Natural environment (insects, diseases, damaged plant parts, etc.)
- Creative drawing
- Demonstration plots
- Models, finished products
- Labels from agro-livestock products
- Exhibits
- Fisherman's Feast (En rio revuelto, ganancia de pescadores)
- Farm Installations and planted fields

Note: Most media should be processed, utilizing the Experimental Learning Model-ELM (see Annex II)

ANNEX I E

CRITERIA FOR SELECTION OF TRAINING MEDIA FOR WORKING WITH ILLITERATE AND SEMI-LITERATE GROUPS

1. Seek out materials and specimens found in the natural environment (i.e. leaves, stems, root systems, insects, infected plant parts, animals with visible disease/parasite symptoms, etc.)
2. Utilize community resources (contour ditches, seedbeds, live barriers, crop plantations, local markets, live stock modules, model farms etc).
3. Utilize media that can be produced locally at little or no cost.
4. Develop media that are easily transportable.
5. Seek out media that are easily used by all extension personnel.
6. Field test proposed media to determine ease of comprehension by target learner group.
7. Utilize media that are easy to build and maintain (i.e. require no spare parts or specialized technicians to repair).

ANNEX I F

A Partial List of Participatory Education Techniques

- Interactive Method Demonstration
- *Silent Method Demonstration
- *Dramatized Method Demonstration
- *Role Play
- *People's or Village Theatre
- *Educational Tours
- *Field Days
- Group Dynamic Techniques ("Icebreakers" and "Energizers")
- Brain-storming
- *Case studies, story telling
- Phillips 66
- *Silent Statues - (Las Estatuas)
- *Dramatized Stories
- Simulations
- *Field Observation
- *Field Practice
- *The Rumor Mill - (Clinica de Rumor)
- Rotating Roles Techniques for conducting meetings - (Roles Rotativos)
- *Songs
- Fishbowl Discussion Group - (La Pecera)
- *Lost Shoes - (Los Zapatos Perdidos)
- *"The People Need" - (El Pueblo Necesita)

- Forced Field Analysis - (Campos de Fuerza)
- *Organization - (La Organizaciòn)
- *Pantomime
- *Communicating with and without questions - (Comunicaciòn con preguntas, sin preguntas)
- *The Planning Process Card Game - (La Baraja de la Planificaciòn)
- *Blue-Green: An Inter Group Negotiation

Note: * Effective implementation of these techniques requires that they be processed by applying the Experimental Learning Model (ELM). (See Annex II)

ANNEX IG- SUGGESSTED SCHEDULE FOR INTRODUCTORY TOT COURSE

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
A.M	15' - Welcome and introduction 90' - One- on- one interviews and group presentations (technique: group dynamic) 15' - Coffee break 30' - Expectations, objectives and course norms 90' - The role of the extensionist as trainer (Technique: creative drawing processed using the experiental learning Model- ELM)	120'- Practice working with the ELM (technique:nine dots exercise) 15 - Coffee break 15'- Introduction to the training process (technique: lecturette) 90'- Conducting training needs assessments (technique: brain-storming)	120'- Selection of training techniques and media technique:brain-storming 15'- Coffee break 120'- Utilization and advantages/disadvantages of training media (technique: small groups analize various types of media)	120'- Review of the ELM and introduction to co-facilitation skills (technique: picture story followed by small work groups) 15'- Coffee break 60'- Practicing and analyzing effective facilitation skills (technique: small group presentations) 60'- Preparation for presentations (groups of two)	120'- Presentations by panticipants and group feedback 15'- Coffee break 120' Presentations by participants and feedback
P.M	30'- How adults learn (technique: the cup exercise + ELM) 60'- Theory of Adult Learning (technique: flipchart and group discussion) 30'- Diferences between traditional teaching and participatory learning 15'- Coffee break 120'- Introduction to the Experiential Learning Model (ELM) (technique: broken squares game)	120'- Introduction to task analysis and competency based training objectives (technique: small groups) 15'- Coffee break 120'- Practice elaborating competency based training objectives (technique: small work groups)	120'- Communicating with farmers: (technique: dramatized method demonstration and silent method demonstration) 15'- Coffee break 120'- Barriers to effective communication (technique: role play + ELM)	120'- Preparation for presentations (groups of two) 15'- Coffee break 120'- Presentations by participants and group feedback	90'- Presentations by participants and feedback 30'- Evaluations of course 20'- Closure ceremony
Even.		60' Basic principies of feedback (techique: puppets + ELM)	90'- How conduct an effective meeting (technique: rotating roles)	90'- Presentations by participants and group feedback	

ANNEX II

SOME METHODS TO MEASURE THE QUALITATIVE IMPACT OF EXTENSION PROGRAMS

1. Oral Testing - Semi-literate individuals and groups are administered simple but standardized oral tests to validate cognitive skills acquisition requires comparative testing of a control group.

2. Group Question/ Feedback Sessions- Small group sessions in which the DMA is utilized to verify changes in attitudes, behaviors, aspirations.

3. Time-Trend Studies- Measure clientele's KASA change, practice change or problem solution over an extended (e.g. multi-year) period. Obtains repeated measurements of clientele progress relative to program objectives.

4. "Before-After" Study- Simple comparison of "before" baseline data and "after" program data. Requires data collection before and after extension program initiation.

5. Case Studies- Observe intensively one or only a few selected individuals, groups or communities. Best conducted by outside observers using their own perceptions of program progress and impact.

ANNEX III

EQUIPMENT, SUPPLIES, MATERIALS LIST

a) Agricultural Tools

- Carpentry hand-tools
- Hand calculators
- Motorized sprayers
- Back pack sprayers
- Hand held compression sprayers
- Hand tools (i.e. shovels, hoes, picks, rakes, sledge hammers, wheel barrows, pruning shears, grafting knives, pruning saws, line levels, machetes, etc)
- Soil testing kits-(PH only)

b) Forestry Tools

- Forest mensuration equipment
- Fire fighting equipment
- Resin extraction equipment
- Forestry thinning equipment
- Forestry harvesting equipment

c) Veterinary Supplies/Equipment

- Syringes/needles and other equipment
- CMT testing equipment
- Nose leads (cattle)
- Ropes
- Thermos coolers
- Refrigerators
- Veterinary, fist-aid kits
- Vaccinations (bovine, swine, poultry)

d) Agricultural Inputs

- Seeds
- Fertilizers
- Pesticides
- Roofing and shading materials
- Rooting hormones
- Nursery bags (various sizes)
- Fencing
- screening
- lumber + nails etc. for equipment construction

TRAINING AND EXTENSION AUDIOVISUAL EQUIPMENT

- Copy machines, paper, toner, etc.
- Mimeograph machines, paper, stencils, ink, etc.
- Cameras + film
- Portable battery operated slide/filmstrip projectors plus accessories.
- 1 set of video equipment
- Battery operated cassette players and cassettes.

ANNEX J

BASELINE, MONITORING AND EVALUATION

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Best Available Document

Executive Summary

An important aspect of the LUPE Project will be the monitoring of the impact produced by the Project interventions on the target population. For that purpose a Planning, Monitoring and Evaluation Unit (PMEU) will be established and will be responsible for the collecting, processing and analyzing of all the information needed by the Project. Specifically, the PMEU will oversee the establishment of the Project Geographic Information System (GIS), supervise the characterization and baseline studies, coordinate the monthly and annual planning/evaluation meetings, and make recommendations to Project Management for policy changes.

A characterization study will be performed on each new area of the Project. Existing biophysical and socioeconomic data will be collected from different governmental and private institutions, after which the information will be confirmed with a site visit. The preliminary implementation priorities and stategies will be determined for each area based on the characterization.

A Geographic Information System (GIS) will be established under LUPE to update old maps and the data collection methodologies currently employed by the GOM. In addition to obtaining new aerial photography of the Project area, the GIS will convert analog data, maps and statistics to compatible digital form.

LUPE will also carry out a Baseline Survey, in which basic socioeconomic conditions are measured in a sample population before Project start-up and each year thereafter. The PMEU will then be able to quantify on-farm changes in production, income, gross domestic product and nutritional status among the Project beneficiaries. The PMEU will also monitor a series of indicators, some to quantify the Project achievements, while others will measure technical impact through the use of test plots. These indicators will be used by Project Management in policy decisions.

Another function of the PMEU will be to optimize the information managed by the Project to ensure that valuable extension agent's time as well as computer space is used most efficiently. The unit will designate the Department of Sectorial Planning (DPS) as its counterpart office from MNR to assure political support for the Project.

The dynamic, decentralized planning and evaluation processes of the Natural Resources Management Project (NRMP) will continue to be used under LUPE with slight modifications. Through monthly and annual meetings, Project extension agents will receive feedback on the quantity and quality of their work and make the necessary adjustments. Project Management, with help from the PMEU, will reorient the process to emphasis more change-of-attitude in the farmer.

Finally, LUPE will carry out at least two special studies, the first to study the background of the "middleman" and look into the possiblity of involving him indirectly in agricultural assistance, and the other in the compatibility of on-farm grazing with soil conservation structures.

BASELINE, MONITORING AND EVALUATION

I. Introduction

The purpose of the Land Use Productivity and Ennancement Project (LUPE) is improve production and productivity in the hillside agricultural areas as well as to improve the management and effective protection of the natural resource base of Honduras. Essentially, the Project will continue and expand the activities carried out by the Natural Resources Management Project (NRMP), which has achieved a successful approach to provide technical assistance to small hillside farmers.

The goal of the LUPE Project is to improve the socio-economic well-being of the Honduran rural family. Among the target activities are included the following:

Soil Conservation	50,000 ha
Improved Pasture/Range Management	10,000 ha
Natural Forest	10,000 ha
Multipurpose Trees	5,000,000 trees
Fruit trees	500,000 trees
Community Nurseries	500
Irrigation Systems	2,500 particip.
Processing and marketing	500 factories

The preceding outputs imply involving 50,000 households in a successful technology transfer process and, increasing their basic grain production by 30%. As a consequence, the project should have the ability to monitor the activities, evaluate the impact on a periodic basis, and to desegregate by gender those impacts.

The size of the Project, as well as its objectives requires a well defined institutional framework with a strong supporting information network that permits each implementation level to have access to the information required to make the best decisions for the project's success. It is also important to be able to disseminate information outside the Project for those sponsoring the activity and the general public.

II. Planning, Monitoring and Evaluation Unit (PMEU)

The LUPE Project will establish from its onset a Planning, Monitoring and Evaluation Unit (PMEU) which will be responsible for collecting, processing and analyzing all the information needed by the Project. The PMEU will be housed in the Project's Central Office in the Ministry for Natural Resources (MNR). The PMEU will be a multidisciplinary team, headed by an Agricultural Economist, who will report directly to the Project Director. Personnel for this unit should have an educational background in economics, administration

or agronomy as appropriate and be selected from the current NRMP Staff, as technicians coming from "outside" will lack the necessary background in the Project's methodology. Nevertheless, a short-term, expatriate advisor will be contracted to train the PMEU personnel in up-to-date information system, monitoring and evaluation and to consolidate the unit's activities.

Responsibilities of the PMEU

1. To store and process the information available from the Project and from other agencies (such as nutritional data from the Ministry of Health) that is relevant for successful implementation.

2. To analyze specific aspects of each component and make recommendations to the Technical Assistance (TA) Unit and the Project management about policies or implemented activities.

3. To provide valid data upon which any policy change during the LOP can be made.

4. To oversee the establishment of a Geographic Information Service (GIS) in the Project for data management.

5. To supervise the characterization and Baseline Study activities and ensure that all necessary data is gathered and appropriately analyzed.

6. To provide all requested administrative or technical information that is normally processed by the unit, to USAID, MNR or other institutions.

7. To organize and coordinate the Project's monthly and annual internal Planning/Evaluation Events.

8. To support external evaluations financed by USAID.

9. Coordinate the monitoring of NGO activities within LUPE.

10. To define with the TA Unit the need for special studies and to support the necessary monitoring

11. To support the TA Unit in the different technical components.

As the Project expands, keeping track of the information in detail will be difficult for each Regional Supervisor and Extension Agents. Therefore, in each new Project Region, a trained technician from PMEU will manage the information system. This Information Assistant will be responsible for eight to ten agencies, assisting the Supervisor and agency staff in providing timely and standardized data of the area in which they work. The Information Assistant will receive training in the Central Office PMEU before being assigned to a Project Regional Unit.

Responsibilities of the Information Assistant

1. To support the Supervisor in reviewing the Agency's records (farm plans, records of visits, monitoring formats, etc.) on a monthly basis.

2. To monitor the collection of data on the demonstration plots.

3. To assist the Agency Staff and Supervisor in reviewing credit applications.

4. To help train para-technicians and contact farmers in reporting and monitoring.

5. To link the remote extension agencies with the Regional Offices on information aspects.

6. To gather specific information required by the MNR and other agencies during special campaigns.

7. To coordinate regionally the baseline study surveys.

8. To help train new personnel in the use of formats.

9. To evaluate the information system, together with the Central Office PMEU, on a bimonthly basis.

10. To collect prices on basic grains and other commodities in the region on a monthly basis.

III. Characterization and Baseline Studies

An integral part of LUPE will be beneficiary impact monitoring, and this will be done through a Baseline Study. This process will involve two separate but simultaneous activities, the caracterization and the baseline studies. The characterization study is a one-time activity in which the PMEU and TA Unit rapidly (two or three days) will collect general information on biophysical and socioeconomic conditions in each new target area. This information will be used to make early implementation decisions. The baseline study is a measure of the initial socioeconomic situation of the local population analyzed and tabulated in detail from a survey. The data collected will be updated annually in order to quantify the impact of the Project over time.

A. Characterization Information Base

The activity of collecting general biophysical and socioeconomic data for the characterization will be limited to gathering existing information in various governmental and private institutions, complemented with a field visit to confirm the data. The information will include actual and potential land use, vegetative cover, soil types, slopes, land tenure, climate, ecologic life zones, infrastructure, population density, health and nutritional status, family incomes, and credit and marketing potential. Collection and initial

analysis of these data will help to establish priorities based on natural resources and production potential, from which the preliminary work strategy of the extension agency is prepared. To optimize this process, the PMEU and the TA Unit will be trained in the processing and analysis of this information by a short-term, expatriate information advisor.

All the sources available will be used to enhance the planning process. For the purposes of the characterization study all the existing data will be collected, but no additional information will be created by Project personnel using current systems. The main effort will be to update the existing information with a practical approach. The cartographic data currently utilized in the country is based on aerial photography taken between 1957-64 - land use, vegetative cover and infrastructure are out of date.

Within the context of agricultural development, the principal need is for information which will support increased production on hillsides. This includes information on natural resources, soils, water, vegetation, climate, infrastructure, population, etc. There is also an increasing recognition that critical biological resources are threatened by uncontrolled or poorly conceived development, and that long-term consequences of this process may cause irreversible impacts on local and global environments. Effective development and practical resource management requires basic maps of the physical environment, including planimetric base maps, current and potential land use, demography, socioeconomic status, current and planned infrastructure, etc. The practical approach to this study is through a micro-computer based Geographical Information System (GIS).

B. Geographic Information Service (GIS)

GIS technology is a rapidly developing information-handling science which uses computers to record and analyze data on a variety of different topics with a common geographic reference, and to effectively overlay, model and manipulate these data to meet given analytical objectives. The value of the system is as a planning, decision-making and monitoring tool which enables the resource technician or development planner to consider combinations of data sets through statistical and mapped information which is made compatible.

To be used in a GIS, data must first be converted into computer-compatible form. In the past, the conversion of analog data, maps and statistics to digital form was labor intensive, requiring a skilled technician working for several days per map.

Recent development of user-friendly, higher storage capacity, low cost integrated image processing and GIS hardware and software systems, and the growth of GIS as a discipline, has expanded the potentials and applications of these technologies. Because of the tremendous changes created by the development of powerful personal computers (PCs), there are a number of commercially available GIS packages for desk top workstations. These PC workstations can operate as "stand alone" systems that allow the individual to literally take a 24" x 36" digitizing tablet off the wall and quickly develop and manage the data sets for an intermediate-size watershed. At the same time, this PC workstation can be networked with remote computing capabilities

to become a component in a regional system.

The current state of GIS (as well as digital-format remote sensing) technologies enables the development community (both donors and implementors) to economically and efficiently utilize the array of available and required resource and socioeconomic data in the context of planning and management decisions.

LUPE will acquire a GIS which contains a database that is fully compatible, flexible, and designed to allow both present and future managements to fully support the purposes for which the GIS is developed and its operations (i.e., planning, monitoring, decision-making support, priority, evaluation, etc.). A private agency will be contracted to prepare the GIS and train project personnel (PMEU) in its use.

Some illustrative GIS capabilities and applications within the context of the LUPE Project are provided below. Their actual development will depend upon the available database.

* Select priority areas for soil conservation, agroforestry and silvipastoral practices.

* Select areas for developing small scale irrigation systems.

* Define zones of risk to agricultural production in order to implement specific programs.

* Prioritize credit needs as well as identify high default risks.

* Identify limiting factors for agricultural production.

* Prioritize activities based on nutritional status, population density and other socioeconomic factors.

C. Baseline Survey

A detailed survey will be performed in each new community considered for the Project before the implementation process starts and on an annual basis to continuously update the information and evaluate project impact. The survey data will be oriented to facilitate measuring changes in the Gross Domestic Product and nutritional status in the area on an annual basis, and the impact on production and income on a seasonal basis. The survey will also disaggregate the data by gender in order to measure separately the impact of the Women in Development activities working with the rural women beneficiaries.

The survey required for the baseline study will also provide information at the community level that could be referenced with the secondary data already available in the PMEU from the characterization. This will allow changes to be correlated with the national or regional indexes, as well as detection of site specific changes as Project implementation continues.

For the first distribution of the baseline survey, a random sample of the

farmers from the selected area will be performed to define a non-bias starting point. As the Project becomes active in the area, the sample will be separated into two types of farmers: direct beneficiaries of the Project, and nonbeneficiaries. The latter will serve as the control group. The size of the sample will be decided in advance according to the population density of each region, and will be statistically valid for correlation with the national or regional indexes. The survey will be carried out once per year and during the same time each year.

Either a private firm will be contracted to perform the survey or Project personnel will be used. Both alternatives have advantages and disadvantages.

Private Firm

Advantages	Disadvantages
* Reduced work volume to project personnel in the process.	* Increased cost
* Elimination of bias in the survey.	* Training on project activities will be required for the surveyors.
* Easier to do at the same time each year.	* Unfamiliarity with each project area

Project Personnel

* No training on project activities is required.	* Extension agents will be taken away from their residence agency for one month.
* Continuity of the process is assured.	* Some bias could be included in the survey to protect the project.
* Cost could be substantially reduced.	
* Extension agents involved in the operation will be exposed to activities of the project outside of their own working agencies, and become more familiar with working environment.	* More work in planning the operative will be required by the central office and PMEU.

The questions included in the survey will be carefully reviewed by Project Management and technicians before their use. Once the questionnaire is utilized it becomes a permanent instrument that cannot be modified at random. Some information could be added to enhance it, but the only information useful for baseline purposes will be that gathered in the first survey before the Project's presence in the area. The short-term information advisor hired to train personnel in characterization data analysis will also assist in the final drafting of the survey.

IV. Planning and Evaluation

LUPE, through the PMEU, will have an intensive, internal monitoring system which will provide the necessary feedback to project personnel, particularly at the management level, based on experiences in the extension agencies, in order to make the necessary policy adjustments to improve Project Implementation.

A. Background

The NRMP has already established a modest but functional monitoring and information unit. However, the basic duties of the NRMP office are reduced to storing and manipulating information without the necessary analysis. The personnel within the unit participate in the evaluation process principally as observers. The purpose of their presence is to fill gaps of information in the forms utilized for the traditional comparison of programmed goals against those implemented.

The unit also does not get actively involved in the technical, administrative and financial planning and decision-making process of the project. This is because: (1) unit personnel lack training and technical background in information management and monitoring and evaluation processes; (2) limited authority is conceded to the unit for planning and evaluation; and (3) the unit has inadequate and superficial interaction with the TA team. As a result, the unit is reduced to the function of entering field data into the computer system, and consolidating the information according to requests from the different authority levels.

There does exist however, a great deal of knowledge and experience on the part of the Project's planning personnel concerning NRMP's proven methodology. LUPE personnel will strive to improve this knowledge and experience through proper training. The NRMP experience will be utilized at the maximum, particularly during the early stages of LUPE.

B. Information Management

The most difficult task of any information managing team is to define the type and level of information to be collected because of the tendency to satisfy the demands from outside of the implementing unit. There is also an inclination by technicians to demand more information than necessary as a sense of security when a decision is required.

Another common mistake made in information gathering is the tendency to compile and store the intermediate data used to calculate overall Project achievements when in fact this type of information is only important and useful for supervisory purposes on a monthly basis. This data is valuable for "lessons learned" and as such, should be rigorously analyzed by the TA Unit, but there is little need for it to be stored permanently. It is recommended, however, that the raw field data be summarized into quantified achievements periodically (every 3-4 months) and published together a policy implementation update.

The PMEU will be oriented to supply information required by Project Management and the TA Unit. The LUPE Project Management will use data to help make policy decisions and to inform sponsoring agencies (USAID/GOH) on technical, financial and administrative aspects of project progress. The TA Unit on the other hand, will need the information to continuously analyze the implementation process. A limit on detail will be defined, however, to ensure that agents do not spend time gathering information that will not be useful to the project. All the information available and produced by the project will be in the public domain, as is (without further processing which could affect project personnel time).

C. Institutional Coordination

The MNR has not traditionally used the decentralized planning system (and in some cases, may even oppose it). For many divisions within the MNR the system represents a loss of power in the aspects they have traditionally regulated. For this reason, several large and powerful Directorates within the Ministry may attempt to control, or at least influence, the planning process of LUPE. Therefore, a collaborative understanding relationship will be established between the LUPE/PMEU and the MNR, to assure political support of the Project at the highest levels. To that end, the Department of Sectorial Planning (DPS), an office which is more directly involved with projects and programming, will be designated as the MNR counterpart office to LUPE, through the PMEU.

D. Indicators

The PMEU will continuously monitor the Project's progress through extension agency field implementation reports as part of the monthly planning and evaluation meetings. Each extension agency will establish annual and monthly goals for each activity, which help achieve a Project objective. Among the quantitative activities to be used as indicators are: number of beneficiaries, former groups, training events, amount of subsidies, soil conservation structures cropping practices, agroforestry plantations, trees produced, forest land managed, animals vaccinated, pasture grazing area managed, stoves improved, vegetable gardens planted, land irrigated, total produce processed, and cash-producing projects.

A qualitative analysis will also be performed by the PMEU in addition to the baseline survey, to determine the impact of Project activities. While the Baseline Survey will measure socioeconomic conditions of the farm family and how these are improved under LUPE, the qualitative analysis will consist of a series of test plots established throughout the Project area which incorporate Project interventions to measure such variables as: specific crop yield increase, soil retention, increased soil fertility (organic matter content), production of pasture grasses and fuel wood, integrated pest management and others. Many of these indicators will also help to determine the environmental impact of the Project (e.g. decreased soil erosion, reduced deforestation through on-farm tree production and grazing, less agrochemical contamination, etc.). The test plots will also help Project personnel to discover and make corrections for unforeseen effects caused by a particular technical intervention.

As a result, Project Management will be able to identify field personnel needs and programming deficiencies, in the case of the quantitative analyses, and determine the optimum technical interventions to be promoted in each region, by means of the qualitative analyses. Additional inputs for management and policy decisions are discussed in the following section.

E. Planning Process

The new LUPE system will continue to use the Project Planning system currently employed by NRMP, which is based on three major assumptions:

(1) Priorities for technical assistance should come from the field level (i.e., from the beneficiaries and their local conditions).

(2) The activities carried out emphasize a conservationist approach toward the natural resources, focused on a change in people's attitude towards their sustainable use.

(3) The planning process is decentralized (bottom up) coming from the extension agencies with a clear understanding of priorities.

The application of these three concepts means that each extension agency work area has its own particular characteristics, and specific activities must be planned accordingly to bring improvements in the resource base. To that end, each agency is responsible for preparing their own work under the technical supervision of the TA Unit.

The forms utilized by NRMP are well designed and cover the main aspects required for control the objective, the expected targets for each activity to be achieved on an annual and monthly basis, the personnel responsible for each action or activity, and finally, some space is provided for comments on particular successes and difficulties in implementation which will be used as feedback to project personnel. The forms have proven to work as an important tool to help the extension agents in organizing their monthly work, as well as to focus on a wide range of activities which the Project implements.

A series of interviews were carried out among different echelons of NRMP personnel to identify problems in using the forms. The majority of those questioned confirmed that the forms were useful in helping them organize their work, although some problems did arise, such as:

(1) An increase in data gathering, with no clear indicator of how the information will be used.

(2) No uniformity in the use of the forms, which denotes a lack of steady criteria about the inputs.

(3) Measurement targeted on physical structures, disregarding changes in farmer's attitude.

(4) The decentralized concept for the planning process that proved successful initially is being lost, due to MNR's traditional management imposed planning.

(5) The analysis of plans by the TA Unit is being reduced to quantitative aspects.

In order for LUPL to improve on NRMP's current planning process, Project Management will address the following set of questions while designing the new system.

Administrative

What is the technical level of personnel?

What is the personnel ratio field team/central office?

What is the ratio technician/farmers in each agency?

Are the agencies properly staffed for the current and potential use of the area?

What is the area covered by a given extension agency?

What is the budget for extension agency per year?

Technical:

How is the subsidy policy influencing project objectives?

What is the most popular practice in a given area and why?

How long should a community be under the direct influence of the project?

What is the necessary percentage of farmers working with the Project from a given community in order to achieve a multiplar effect within that community?

Does the group organization provide the expected results or should the approach be changed?

What experiences have been good and should be promoted in other agencies with similar characteristics?

What are minimum requisites for selecting a paratechnician?

In which agencies is the credit program functioning?

How much area is the project affecting with all its components?

Information Gathering:

What is the purpose of gathering a new piece of information?

What will be the use of the information?

Will it be used for decision-making at the policy level of the project?

Will the information be used at the agency level?

How much time will it take to gather the information?

Is it going to be of permanent or temporary use?

Might the information be contained within what is currently gathered?

Is the information directly related to the expected output of the project?

Does the project have the capacity to obtain and process data?

F. Evaluation Process

The evaluation process in NRMP with monthly and annual planning/evaluation meetings, is dynamic and brings about continuous corrections and adjustments during implementation. The feedback produced at the monthly events allows each extension agent to learn from the specific successes and failures of his and other agencies, to compare programmed activities with actual achievements and to reprogram according to progress and experience. The reprogramming of activities does not come from the TA Unit, (whose chief responsibility is to review the quality of technology transfer to the farmer), but rather through the Field Supervisor.

A similar methodology will be utilized within LUPE. Specifically, the monthly evaluations will produce:

(1) Comparisons of the monthly programed activities with the goals obtained.

(2) Identification of administrative bottlenecks that are affecting project implementations.

(3) Requests and organization of TA Unit visits to the agencies.

(4) Review of the annual work plans in order to update those activities which will start during the subsequent month.

(5) Recommended follow-up activities.

(6) Identification of potential case studies

(7) Sharing of experiences among extension agencies.

(8) Discussion of problems found within the implementation strategies.

(9) Presentation of the results of test plots and any subsequent policy change.

(10) Discussion of successful change-in-attitude techniques.

More time will be allocated to discuss conceptual aspects of the activity rather than quantitative analysis. That is, more importance will be given to finding out why things are happening or why not rather than simply measure and compare achievements, in order to define strategies and policies for a particular extension agency.

The annual evaluation is within the same context as monthly evaluations, but with broader objectives encompassing the whole Project; from this process the policies and strategies for the following year will emerge.

V. SPECIAL STUDIES

A. Middleman Study

The small farmer confronts a very peculiar situation concerning marketing, credit and production. The LUPE principal target group is composed primarily of the subsistence farmers who do not belong to the cash economy. Because of this, at some point during the production process they are obligated to sell with little or no profit part of their harvest in order to obtain other types of goods which they cannot produce.

One of LUPE's objectives is to increase production so that the small farmers can satisfy their own needs and also produce a surplus that can be sold at the local markets. However, neither the official nor the private banking sector are structured in a proper manner to satisfy the services for credit, marketing and transport. This will only happen once the small farmer is introduced into the cash economy.

These types of services are, in most cases, provided by the middleman ("coyote"), who takes the risk of buying the product, transporting it and finally marketing it in the urban areas. Traditionally, this small businessman has been looked upon as an exploiter of farmers. This idea is not shared by the small farmer in most cases, however, because of the amount of services he/she receives from the "coyote". In the rural areas, the middleman is an institution with deeper roots than any official or private sector.

A study will be undertaken early in Project implementation to identify the mechanisms used by the middleman, including his limitations, to identify his funding sources, and to discover his opinion of agricultural technical assistance. The study should be based upon an informal interview (a formal survey could intimidate those interviewed), and should be carried out at different levels within the community.

The overall objective of this study is to look into the possibility of utilizing the middleman to further benefit the marginal farmer through indirect investment in the farmer assistance program. Project technical assistance and LUPE staff will design a scope of work for this activity.

B. Soil Conservation Structures Study

During many years, NRMP has been building soil conservation structures. A limitation found in dry areas, without irrigation is the need to feed cattle

with the leftover stubble from the harvest. A brief study was done in early 1984 to identify how much damage the livestock was causing in the structures. At this time and taking into account the amount of area under soil conservation, some parameters will be defined.

(1) To identify the type of soil conservation structures that can handle grazing.;

(2) To provide guidance about carrying capacity on the field with soil conservation structures; and,

(3) To provide practical methods for minimizing damage on farm structures.

BASELINE STUDY SURVEY

H M 1. Nombre del productor

Comunidad Municipio Departamento

Agencia de Extensión Sub-Región

H M 2. Quienes viven en la casa?

Nombre	Parentesco	Tiempo completo?

H M 3. Cuánto tiempo ha vivido aquí?

H M 4. Area de la Finca Area en Producción

H M 5. Cuánto vende de la producción agrícola?

Granos	Quintales	Lps.
Verduras	Quintales	Lps.
Frutas	Quintales	Lps.
Huevos	Cantidad	Lps.
Leche	Botellas	Lps.
Queso	Libras	Lps.
Leña	Cargas	Lps.
Otros	Cantidad	Lps.

H M 6. Cuánto consume de la producción en la finca?

Granos	Quintales	Lps.
Verduras	Quintales	Lps.
Frutas	Quintales	Lps.
Huevos	Cantidad	Lps.
Leche	Botellas	Lps.
Queso	Libras	Lps.
Leña	Cargas	Lps.
Otros	Cantidad	Lps.

* H M se refiere si el Hombre o la Mujer contesta cada pregunta.

H M 15. Tiene gallinas? Si No

Con qué propósito? Vender Comer Canjear

H M 16. Le da maíz a las gallinas? Si No Cuanto al día?

Cuántos huevos ponen sus gallinas a la semana?

H M 17. Qué otros animales tiene?

Cerdos Vende Precio Cuántos al año?

Otros Vende Precio Cuántos al año?

H M 18. Le da maíz a los cerdos? Si No Cuanto al día

H M 19. El maíz que siembra es criollo? o compra semilla?

Cuánto se ahorra usando su semilla?

H M 20. Vende pasto? Si No

En qué fecha? Primera Postrera Verano

Cómo le pagan? Dinero Ganado Gallina Cerdo

Leña Otros

Cómo pone el precio?

Cuánto le saca en dinero al pasto?

H M 21. Compra alimentos que no produce en su finca? Si No

Donde? Pulperia Otro campesino Coyote

Cuánto gasta a la semana?

H M 22. Usa insecticidas? Si No

Cuánto gasta?

H M 23. Usa fertilizantes? Si No

Cuánto? A cómo lo compra?

H M 24. La leña cómo la consigue?

Recoge Si No

Compra Si No

Cuánto gasta de leña a la semana? Cargas

Cuánto paga por la carga?

H M 7. En la finca cuánto tiempo trabaja al año?

Días Meses Permanente

H M 8. Trabajan miembros de su familia (esposa, hijos) en la finca?

Cuánto tiempo?

Días Meses Permanente

Les paga? Si No Cuánto?

H M 9. Trabaja usted fuera de la finca?

Días Meses Permanente

Qué sueldo gana por día?

H M 10. Trabajan miembros de su familia fuera de la finca?

Cuánto tiempo?

Días Meses Permanente

Qué sueldo ganan por día?

H M 11. Para los trabajos de la finca contrata otra gente? Si No

Cuánta? En que época? Primera Postrera

Siembra Cosecha

Cuánto les paga al día?

H M 12. Tiene ganado? Si No

Cuántas cabezas?

Qué precio estima por cabeza?

H M 13. Vende ganado? Si No

Cómo estima el precio?

H M 14. Le da alimento a las vacas? Si No

Qué clase? Concentrado Sale Otro

Cuánto gasta al mes?

Cuánta leche produce sus vacas al día?

H M 25. Vende los productos en la finca, o los lleva al mercado?

Cuánto paga de transporte?

H M 26. Su tierra le alcanza para sus actividades? Sí No

H M 27. Arrienda terreno? Sí No

Por cuánto tiempo? Cuánto paga? Al mes Temporada

Primera Postrera Verano

Para qué lo usa? Agricultura Ganadería Pastoreo

H M 28. Cultiva sólo o a medias?

H M 29. Tiene riego en la propiedad o en parte?

Cuánta area? Cuando lo construyo? Fecha

Cómo lo maneja? Solo Con alguien mas

Cuánto le costo hacerlo?

Ya pagó el sistema de riego? Sí No Cuánto pagó

Lo debe? Sí No Cuánto debe?

Cómo lo piensa pagar? Dinero Tierra Vacas Otro

H M 30. Utiliza crédito? Sí No

Quien le presta? Banco Pulpero Coyote

A qué interés le prestan?

Paga con la cosecha? Sí No

Con qué? Granos Vacas Gallinas Dinero

H M 31. Tiene problemas para conseguir crédito? Sí No

Con quien es mas fácil? Pulpero Coyote Bancos Otros

H M 32. Cuántos hijos menores de seis años tiene en la casa?

Nombre Años Peso Altura

H M 33. Están sus hijos en la escuela? Sí No

H M 34. Qué es lo que normalmente comen en la casa?

H M 35. Tiene letrinas? Si No

H M 36. Hierve el agua? Si No

H M 37. Hay médico en el pueblo? Si No

Pagan las consultas? Si No Cuanto

Cómo consiguen las medicinas?

5C(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; 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? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1.	FY 1989 Appropriations Act Sec. 523; FAA Sec. 634A. If money is sought to obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified?	YES
2.	FAA Sec. 611(a)(1). Prior to an obligation in excess of $500,000, 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?	(a) YES (b) YES
3.	FAA Sec. 611(a)(2). If legislative action is required within recipient country, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?	N/A

4.	FAA Sec. 611(b); FY 1989 Appropriations Act Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)	YES
5.	FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?	N/A
6.	FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? 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 on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, 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 Project will encourage 7(b) and 7(e); will take steps to prevent 7(d) and is neutral on 7(a), 7(c) and 7(e).
8.	FAA Sec. 601(b). Information and conclusions on 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 services of U.S. private enterprise).	A major portion of the technical assistance for the project will be procured from U.S. sources.

9. FAA Secs. 612(b), 636(h). 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.	Honduras has agreed provide counterpart financing of local costs to the extent possible. Honduras is not an excess currency country.
10. 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
11. FY 1989 Appropriations 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 likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?	The commodities produced under this project are for the domestic Honduran market.
12. FY 1989 Appropriations Act Sec. 549. Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?	NO
13. FAA Sec. 119(g)(4)-(6) & (10). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other	(a) YES (b) YES (c) YES (d) NO

wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

14. FAA Sec. 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 (either dollars or local currency generated therefrom)? — N/A

15. FY 1989 Appropriations Act. If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government? — Assistance to U.S. PVOs is not contemplated under this project

16. FY 1989 Appropriations Act Sec. 538. If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? — N/A

17. FY 1989 Appropriations Act Sec. 514. If funds are being obligated under an appropriation account to which they were not appropriated, has prior approval of the Appropriations Committees of Congress been obtained? — N/A

18. State Authorization Sec. 139 (as interpreted by conference report). Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision). — As soon as a final signing date is confirmed USAID will cable this information to STATE L/T and A.I.D. LEG and upon signature will pouch the agreement.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FY 1989 Appropriations Act Sec. 548 (as interpreted by conference report for original enactment). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers?

a) NO
b) NO

b. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life, and otherwise encourage democratic private and local governmental

a) This project is aimed at assisting the poorest farmers in Honduras. The Project will assist these farmers to increase their productivity and production through the use of proven appropriate technology, thereby increasing their incomes.

b) Although the Project will not be developing cooperatives, farmers will be organized into Local Agricultural Committees in order to move efficiently receive the services and training bein provided by the project.

institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.	c) The Project is neutral on point (c). d) The Project fully integrates women into Project Activities. Special emphasis will be placed on facilitating credit to women for agricultural and post harvest activities. e) The Project is neutral on point (e).
c. FAA Secs. 103, 103A, 104, 105, 106, 120-21; FY 1989 Appropriations Act (Development Fund for Africa). Does the project fit the criteria for the source of funds (functional account) being used?	YES
d. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?	YES
e. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent 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, host country will be providing at least 25% of the cost of the Project.
f. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?	N/A

g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.	The Project was designed to meet the desires and capacity of the rural population of Honduras. The Project was designed with host country participation and will be implemented by the host country. Training will be provided, the project, to allow those trained to return to Honduras and take supervisory and management positions within the government.
h. FY 1989 Appropriations Act Sec. 536. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?	NO
Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?	NO
Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?	NO
i. FY 1989 Appropriations Act. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization?	NO
If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?	N/A

j. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	YES
k. FY 1989 Appropriations Act. What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?	Competitive procedures will encourage participation of these groups.
l. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (e) help conserve forests which have not yet been degraded by helping to increase	Yes, assistance complies with procedures set in A.I.D. Reg. 16, Project places high priority on conservation and sustainable management of tropical forest. a) Yes b) Yes c) Not directly, but through training in watershed management d) Yes e) Yes

production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (j) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k)/utilize the resources and abilities of all relevant U.S. government agencies?

f) Yes
g) Not directly, but in conjunction with the forest Development Project.
h) Project has no research component.
i) Yes
j) Yes
k) Yes

m. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b)/take full account of the environmental impacts of the proposed activities on biological diversity?

a) Yes
b) Yes

n. FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?

a) NO
b) NO

o. FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

a) NO
b) NO
c) NO
d) NO

p. FY 1989 Appropriations Act. If assistance will come from the Sub-Saharan Africa DA account, is it (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) being provided in accordance with the policies contained in section 102 of the FAA;

N/A

(c) being provided, when conistent with the objectives of such assistance, through African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (d) being used to help overcome shorter-term constraints to long-term development, to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (e) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the renewable natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve primary education, and to develop income-generating opportunities for the unemployed and underemployed in urban and rural areas?

q. FY 1989 Appropriations Act Sec. 515. If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same general region as originally obligated, and have the Appropriations Committees of both Houses of Congress been properly notified?

DEOB/REOB authority is not being exercised at this time

2. Development Assistance Project Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.

N/A

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 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?

N/A

c. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

N/A

3. Economic Support Fund Project Criteria

a.	FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA?	N/A
b.	FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes?	N/A
c.	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?	N/A

SC(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to: (A) FAA funds generally; (B)(1) Development Assistance funds only; or (B)(2) the Economic Support Fund only.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FY 1989 Appropriations Act Sec. 578(b). Has the President certified to the Congress that the government of the [illegible] adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully? NO

2. FAA Sec. 481(h); FY 1989 Appropriations Act Sec. 578; 1988 Drug Act Secs. 4405-07. (These provisions apply to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, narcotics education and awareness, or the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are

complicity of the government): (a) Does the country have in place a bilateral narcotics agreement with the United States, or a multilateral narcotics agreement? and (b) Has the President in the March 1 International Narcotics Control Strategy Report (INSCR) determined and certified to the Congress (without Congressional enactment, within 45 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (1) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to satisfy the goals agreed to in a bilateral narcotics agreement with the United States or in a multilateral agreement, to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, to prevent and punish drug profit laundering in the country, and to prevent and punish bribery and other forms of public corruption which facilitate production or shipment of illicit drugs or discourage prosecution of such acts, or that (2) the vital national interests of the United States require the provision of such assistance?

YES

N.A.

3. <u>1986 Drug Act Sec. 2013; 1988 Drug Act Sec. 4404</u>. (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec 481(h)), has the President submitted a report to Congress listing such country as one (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs; (b) in which any senior official of the

N.A.

government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country?

4. FAA Sec. 620(c). If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies, (b) the debt is not denied or contested by such government, or (c) the indebtedness arises under an unconditional guaranty of payment given by such government or controlled entity?

A.I.D. knows of no such cases

5. FAA Sec. 620(e)(1). If assistance is to a government, has it (including any government agencies or subdivisions) taken or has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

[illegible] evidence of such action.

6. FAA Secs. 620(a), 620(f), 620D; FY 1989 Appropriations Act Secs. 512, 550, 592. Is recipient country a Communist country? If so, has the President determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient country from international communism? Will assistance be provided

No. No assistance will be provided to the mentio[illegible] countries

either directly or indirectly to Angola, Cambodia, Cuba, Iraq, Libya, Vietnam, South Yemen, Iran or Syria? Will assistance be provided to Afghanistan without a certification, or will assistance be provided inside Afghanistan through the Soviet-controlled government of Afghanistan?

7. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, damage or [illegible] property?

Yes. The Government has agreed to pay for all damages for the unusual circumstances leading to the burning of the Embassy Annex April 7, 1988 are highly unlikely to reoccur.

8. FAA Sec. 620(l). Has the country failed to enter into an investment guaranty agreement with OPIC?

Honduras has an agreement with OPIC

9. FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made?

There is no evidence that an action of this nature has occurred for many years.

10. FAA Sec. 620(q); FY 1989 Appropriations Act Sec. 518. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1989 Appropriations Act appropriates funds?

a. No

b. No

11. FAA Sec. 620(s). If contemplated assistance is development loan or to come from Economic Support Fund, has the Administrator taken into account the percentage of the country's budget and amount of the country's foreign exchange or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of

n.a.
Yes, taken into account by the Administrator at the time of approval of Agency OYB

Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

12. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? NO

13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget? (Reference may be made to the "Taking into Consideration" memo.) Honduras is not in arrears to the ext. described in Artic of the U.N. Charte.

14. FAA Sec. 620A. Has the President determined that the recipient country grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism or otherwise supports international terrorism? NO

15. FY 1989 Appropriations Act Sec. 568. Has the country been placed on the list provided for in Section 6(j) of the Export Administration Act of 1979 (currently Libya, Iran, South Yemen, Syria, Cuba, or North Korea)? NO

16. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures? NO

17. FAA Sec. 666(b). Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? NO

18. FAA Secs. 669, 670. Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.) NO

19. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? NO

20. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the "Taking [illegible] This has been taken into account during approval of the OYB

21. FY 1989 Appropriations Act Sec. 527. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States? NO

22. FY 1989 Appropriations Act Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior to the resumption of assistance? NO

23. FY 1989 Appropriations Act Sec. 540. Does the recipient country fully cooperate with the international refugee assistance organizations, the United States, and other governments in [illegible] situations, including resettlement without respect to race, sex, religion, or national origin? YES

ANNEX L

IMPLEMENTATION PLAN FOR LUPE

The LUPE Project will continue the activities currently being implemented by the Natural Resources Management Project (NRMP/522-0168). An important aspect of the Project's organization will be the decentralized planning and monitoring methodology, as well as administrative independence from the MNR. The Project's Central Office will be responsible for preparing a detailed Implementation Plan, including financial needs, based on the AID Project Paper and field experience.

A. Conditions Precedent (CPs) to Initial Disbursement

CPs will be kept to a minimum to assure quick Project start-up and avoid losing the momentum achieved under the NRMP.

1. Preparation of the Scopes of Work for LUPE's Executive Director and Project Administrator, and a list from the GOH/MNR of three candidates for each position sent to AID.

2. Rental of an adequate locale by GOH/MNR for the LUPE Central Office.

3. A Legal Opinion from GOH/MNR that the Project Agreement is acceptable to all parties.

B. CPs to Additional Disbusements

1. Approval by GOH/MNR of the special organization of LUPE, which should include: (a) establishment of the proper channels for access to the highest level of MNR by the LUPE Executive Director; (b) consolidation of NRMP decentralized planning and administrative procedures under LUPE; and (c) designation of the DPS as the counterpart office from the MNR to the PMEU of LUPE for coordination purposes;

2. Official transfer by GOH/MNR of all equipment, furniture and vehicles purchased by AID for the NRMP (following inventory) to the LUPE Project.

3. An approved list of the names and positions of all NRMP personnel and any new staff requirements, to be contracted under LUPE.

4. Presentation of an implementation plan for the first year of the Project, including the annual work plan, procurement needs and technical assistance requirements.

C. Project Disbursements to be Excluded from CPs

1. Technical Assistance and AID Project Management costs.

2. LUPE Central Office funding.

3. Funds to continue NRMP participant training in process.

4. Contracting of LUPE Project Director, Sub-Directors and Administrator.

Schedule Name: FIRST YEAR IMPLEMENTATION PLAN 1989
Project Manager: GOH/MNR USAID

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                                                 88  89                                                                                  90
                                                Dec Jan  FebMar  Apr May Jun  Jul Aug Sep Oct  Nov Dec Jan
                                 Who     Status 1   3    1  1    3   1   1    3   1   1   2    1   1   2
NRMP Transition to LUPE          NRMP       R   ========================.     .   .   .   .    .   .   .
PIL #1                           USAID/DF       ========.  .    .   .   .     .   .   .   .    .   .   .
Legal Opinion                    GOH/USAID       =====  .  .    .   .   .     .   .   .   .    .   .   .
Prepare PIO/P Scholarships       USAID/ORD         ===  .  .    .   .   .     .   .   .   .    .   .   .
NRMP Audit                       MNR/USAID  R      ============.    .   .     .   .   .   .    .   .   .
NRMP Inventory                   MNR/AID           ===============    .     .   .   .   .    .   .   .
Multiyear Contract Agreement     GOH               . =======          .     .   .   .   .    .   .   .
Name Committee LUPE Director     GOH/USAID         .    =  .          .     .   .   .   .    .   .   .
Negociate BANADESA Agreement     MNR               .    ====          .     .   .   .   .    .   .   .
Manual Personnel Management      NRMP       R      .    ======        .     .   .   .   .    .   .   .
NRMP Personnel Analysis Ce Off   NRMP/AID    C     .    == .          .     .   .   .   .    .   .   .
NRMP Personnel Analysis Re Off   NRMP/AID          .    .==.          .     .   .   .   .    .   .   .
Scope of Work LUPE Director      Committee  C      .     . ==         .     .   .   .   .    .   .   .
NRMP Personnel Analysis Ext Ag   NRMP/AID        24-Feb-89 ===         .     .   .   .   .    .   .   .
Sing Agreement BANADESA          GOH/USAID        1-Mar-89 ==          .     .   .   .   .    .   .   .
Advertize LUPE's Director Posi   MNR               2-Mar-89.==          .     .   .   .   .    .   .   .
Scope of Work LUPE Deputies      Committee         8-Mar-89.==          .     .   .   .   .    .   .   .
Agreement Hiring NRMP Students   MNR/USAID  R      10-Mar-89 ===.       .     .   .   .   .    .   .   .
Prepare TA scope OF Work         Committee  R      15-Mar-89 =====      .     .   .   .   .    .   .   .
Select LUPE Beneficiaries        EA/NRMP           15-Mar-89 =====      .     .   .   .   .    .   .   .
Prepare Candidates Interview     Committee  R      .20-Mar-89 ==.       .     .   .   .   .    .   .   .
Start Listing LUPE Beneficiari   EA                . 27-Mar-89 ==       .     .   .   .   .    .   .   .
Analize and Select Candidates    Committee  RC     .  30-Mar-89 =       .     .   .   .   .    .   .   .
```

D Done
C Critical
R Resource conflict
p Partial dependency

=== Task
+++ Started task
M Milestone

- Slack time (==---), or
Resource delay (-----=)
> Conflict

Scale: Each character equals 1 week

Schedule Name: FIRST YEAR IMPLEMENTATION PLAN 1989
Project Manager: GOH/MNR USAID

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                                                 88  89                                                                                  90
                                                 Dec Jan  FebMar  Apr May Jun  Jul Aug Sep Oct  Nov Dec Jan
                                Who     Status   1   3    1  1    3   1   1    3   1   1   2    1   1   2

Create PMEU in LUPE Office      ML                   .   3-Apr-89 ==  .   .    .   .   .   .    .   .   .
Look for Office Space for LUPE  NRMP/ORD             .   3-Apr-89 =====  .    .   .   .   .    .   .   .
Prepare RFP                     AID/EXO              .   3-Apr-89 ======= .   .   .   .   .    .   .   .
Hire LUPE Extension Agents      MNR         R        .   3-Apr-89 =========   .   .   .   .    .   .   .
Personnel Selection From NRMP   GOH/USAID   R        .   3-Apr-89 =====  .    .   .   .   .    .   .   .
Candidates Interview Exe. Cire  Committee   RC       .    6-Apr-89.=  .   .    .   .   .   .    .   .   .
Take Over NRMP Activities       EA/LUPE     R        .    7-Apr-89.=========   .   .   .   .    .   .   .
Select Personnel for PMEU       LD                   .   10-Apr-89.=====  .    .   .   .   .    .   .   .
Select and Hire LUPE Director   GOH/USAID   R        .    13-Apr-89 ==.   .    .   .   .   .    .   .   .
Approve LUPE Organogram         MNR/USAID            .    14-Apr-89 ===   .    .   .   .   .    .   .   .
NRMP Beneficiaries Final Numbr  NRMP/EA              .    17-Apr-89 ===   .    .   .   .   .    .   .   .
Designate MNR Couterpart Offic  MNR         R        .    18-Apr-89 ===   .    .   .   .   .    .   .   .
Hire LUPE Deputies              ML                   .    .20-Apr-89 ==== .    .   .   .   .    .   .   .
Transfer Materials to LUPE      MNR         R        .    .  1-May-89 ==  .    .   .   .   .    .   .   .
Select Ph.D Candidate           AID                  .    .  1-May-89 === .    .   .   .   .    .   .   .
Transfer Equipment to LUPE      MNR         R        .    .  .8-May-89.== .    .   .   .   .    .   .   .
Analize Information Available   PMEU        R        .    .  .8-May-89.=========   .   .   .    .   .   .
Prepare Organiztion Workshop    LP/AID/MNR           .    .  .15-May-89 ==.   .   .   .   .    .   .   .
Select MSc. Candidates          AID                  .    .  .15-May-89 ===   .   .   .   .    .   .   .
Publish RFP                     AID/EXO              .    .  .15-May-89 =============  .   .    .   .   .
Organization Workshop           LP/AID/MNR           .    .  .  26-May-89 ==  .   .   .   .    .   .   .
Monthly Programing & Evaluatio  PMEU/EA/TA           .    .  .   1-Jun-89 =   .   .   .   .    .   .   .
Implement New Organization      LD                   .    .  .   1-Jun-89 ==  .   .   .   .    .   .   .
```

D Done === Task - Slack time (==---), or
C Critical +++ Started task Rescurce delay (---==)
R Resource conflict M Milestone > Conflict
p Partial dependency
Scale: Each character equals 1 week

Schedule Name: FIRST YEAR IMPLEMENTATION PLAN 1989
Project Manager: GOH/MNR USAID

	Who	Status	88 Dec 1	89 Jan 3	Feb 1	Mar 1	Apr 3	May 1	Jun 1	Jul 3	Aug 1	Sep 1	Oct 2	Nov 1	Dec 1	90 Jan 2
Monitor Lupe Activities	PMEU	R		.	.	.	1-Jun-89	==========	==========	==========	==========	==========	==========	==========	==========	.
LUPE Extension Program	EA/LUPE	R		.	.	.	2-Jun-89.	==========	==========	==========	==========	==========	==========	==========	==========	.
Followup of NRMP by LUPE	EA	C		.	.	.	2-Jun-89.	==========	==========	==========	==========	==========	==========	==========	==========	.
Consolidate Organization	MNR/AID	C		.	.	.	8-Jun-89.	==========	==========	==========	==========	==========	==========	==========	==========	.
Prepare Administration Manual	PMEU/ADMON	C		.	.	.	.	3-Jul-89	==========	==========	==========	==========	==========	==========	==========	.
Procurement of GIS	AID			.	.	.	.	.	1-Aug-89	==========	==========	==========	==========	==========	.	.
Analize TA Proposal	LD/ORD/DF			.	.	.	.	.	10-Aug-89.	=======	=======	=======	=======	.	.	.
Contract TA	AID/EXO			.	.	.	.	.	.	.22-Sep-89	=======	=======	=======	=======	.	.
Prepare Annual Internal Evalua	PMEU/EA/TA			.	.	.	.	.	.	.	.	1-Nov-89	====	====	.	.
TA Arrival	SELC FIRM			.	.	.	.	.	.	.	.	6-Nov-89	===	====	.	.
Annual Internal Evaluation	PMEU/EA/TA	R		.	.	.	.	.	.	.	.	.	1-Dec-89	===	====	.
POA 1990	PMEU/EA/TA	R		.	.	.	.	.	.	.	.	.	1-Dec-89	===	====	.

D Done
C Critical
R Resource conflict
p Partial dependency
Scale: Each character equals 1 week

=== Task
+++ Started task
M Milestone

- Slack time (==---), or
Resource delay (---==)
> Conflict

Schedule Name: SECOND YEAR IMPLEMENTATION PLAN 1990
Project Manager: GOH/MNR USAID

	Who	Status	90 Jan 2	Feb 1	Mar 1	Apr 2	May 1	Jun 1	Jul 2	Aug 1	Sep 4	Oct 1	Nov 1	Dec 3
Expansion to New Regions			M	.	.	.	.	.	.	.	.	.	.	.
Finish Administration Manual	PMEU/ADMO		========.		.	.	.	.	.	.	.	.	.	.
Extension Activities	LUPE TEAM	RC	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
Monitor Demostrative Plots	PMEU/EA	C	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
TA Support to Extension Agents	TA	RC	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
Select New Region	TA/LD/EA		===.	.	.	.	.	.	.	.	.	.	.	.
Gather Secondary Information	PMEU	R	=====.		.	.	.	.	.	.	.	.	.	.
Monthly Programing & Evaluatin	PMEU	R	=.	.	.	.	.	.	.	.	.	.	.	.
Characterization of New Area	PMEU/TA		====.		.	.	.	.	.	.	.	.	.	.
Select and Hire New Personnel	LD		====.		.	.	.	.	.	.	.	.	.	.
Define Materials and Equipment	TA	R	.=	.	.	.	.	.	.	.	.	.	.	.
Procurement of Equipment	LD/AID	R	.	==========	==========	==========	==========	.	.	.	.	.	.	.
Procurement of Materials	LD/AID	R	.	==========	==========	==========	==========	.	.	.	.	.	.	.
Reconosence Visit	TA/LD/EA	R	.	===	.	.	.	.	.	.	.	.	.	.
Select Priority Areas	LUPE TEAM	R	.	===	.	.	.	.	.	.	.	.	.	.
Define Potential Communities	TA/LD/EA	R	.	===	.	.	.	.	.	.	.	.	.	.
Plan Baseline Study	PMEU/TA		.	.==	.	.	.	.	.	.	.	.	.	.
Define Priority Activities	TA/LD/EA		.	.	===	.	.	.	.	.	.	.	.	.
Survey (Baseline)	PMEU/TA/EA		.	.	=====.		.	.	.	.	.	.	.	.
Rent Office Space	ADMON		11-Apr-90 =				.	.	.	.	.	.	.	.
Assign Personnel To New Areas	LD		.19-Apr-90 ==				.	.	.	.	.	.	.	.
Open New Agencies	LD/AID	R	.19-Apr-90 ==				.	.	.	.	.	.	.	.
Preliminar POA (New Agencies)	PMEU/TA/EA		. 26-Apr-90 ==				.	.	.	.	.	.	.	.

D Done
C Critical
R Resource conflict
p Partial dependency
=== Task
+++ Started task
M Milestone
- Slack time (==---), or
Resource delay (---==)
> Conflict
Scale: Each character equals 1 week

Schedule Name: SECOND YEAR IMPLEMENTATION PLAN 1990
Project Manager: GOH/MNR USAID

	Who	Status	90 Jan 2	Feb 1	Mar 1	Apr 2	May 1	Jun 1	Jul 2	Aug 1	Sep 4	Oct 1	Nov 1	Dec 3
Training & Team Building	TA/EA			.	2-May-90.=========					.	.	.	.	.
Install Demostrative Plots	EA	R		.	2-May-90.==========							.	.	.
Look for Demostrative Plots	EA	R		.	2-May-90.==========									.
Assign Resources To New Areas	LD/AID			.	. 23-May-90 ==========									
Select Contact Farmers	EA	R		.	.	.15-Jun-90 ==========								
Prepare Annual Internal Evalua	PMEU/TA/EA			.	.	.	.	.	.	.	1-Nov-90 =====			
Annual Evaluation	LUPE TEAM	R		.	.	.	.	.	.	.	.	5-Dec-90 ===		
POA 1991	LUPE TEAM	R		.	.	.	.	.	.	.	.	5-Dec-90 ===		

D Done
C Critical
R Resource conflict
p Partial dependency
=== Task
+++ Started task
M Milestone
- Slack time (==---), or
Resource delay (---==)
> Conflict
Scale: Each character equals 1 week

Schedule Name: IMPLEMENTATION PLAN 1991
Project Manager: GOH/MNR USAID

```
                                                 91
                                                 Jan Feb Mar Apr May  Jun Jul Aug  Sep Oct Nov Dec
                                Who     Status   2   1   1   1   1    3   1   1    3   1   1   2

Select NGO For Developing Ares  LO/AID           ====.   .   .   .    .   .   .    .   .   .   .
Extension Activities            EA           RC ==============================================
Monitor Demostrative Plots      PMEU/IA       C ==============================================
Monitor LUPE Activities         PMEU          C ==============================================
TA Support to Extension Agents  TA            C ==============================================
Monthly Programing & Evaluatin  PMEU/EA/TA        =   .   .   .    .   .   .    .   .   .   .
Prepare External Evaluation     PMEU/DPS          .  =========  .    .   .   .    .   .   .   .
External Evaluation             MNR/AID      R    .  1-May-91 =======  .   .    .   .   .   .
Install New Demostrative Plots  EA           R    .  1-May-91 ==================   .   .   .
Select contact Farmers          EA           R    .  1-May-91 ==================   .   .   .
Train Contact Farmers           PMEU/EA/TA        .  1-May-91 ==================   .   .   .
Audit                           MNR/AID      R    .   .   3-Jun-91 ==============   .   .   .
Prepare Annual Internal Evalua  PMEU/EA/TA   R    .   .   .   .    .   .   .   1-Nov-91 =====
Annual Internal Evaluation      PMEU/EA/TA   R    .   .   .   .    .   .   .    .  2-Dec-91 ===
POA 1992                        PMEU/EA/TA   R    .   .   .   .    .   .   .    .  2-Dec-91 ===
```

D Done === Task - Slack time (==---), or
C Critical +++ Started task Resource delay (---==)
R Resource conflict M Milestone > Conflict
p Partial dependency
Scale: Each character equals 1 week

Schedule Name: IMPLEMENTATION PLAN 1992
Project Manager: GOH/MNR USAID

```
                                                92
                                                Jan Feb Mar Apr  May Jun Jul Aug  Sep Oct Nov Dec
                                Who     Status  2   3   2   1    1   1   1   3    1   1   2   1

Expansion to New Regions                        M   .   .   .    .   .   .   .    .   .   .   .
Extension Activities            LUPE TEAM  RC  ==================================================
Monitor Demostrative Plots      PMEU/EA     C  ==================================================
TA Support to Extension Agents  TA         RC  ==================================================
Select New Region               TA/LD/EA        ===.   .   .    .   .   .   .    .   .   .   .
Gather Secondary Information    PMEU       R      =====.   .    .   .   .   .    .   .   .   .
Monthly Programing & Evaluatin  PMEU       R      =.   .   .    .   .   .   .    .   .   .   .
Characterization of New Area    PMEU/TA            ====.   .    .   .   .   .    .   .   .   .
Select and Hire New Personnel   LD                 ====.   .    .   .   .   .    .   .   .   .
Define Materials and Equipment  TA         R       .=  .   .    .   .   .   .    .   .   .   .
Procurement of Equipment        LD/AID     R       . ============== .   .   .    .   .   .   .
Procurement of Materials        LD/AID     R       . ============== .   .   .    .   .   .   .
Reconosence Visit               TA/LD/EA   R       . ===   .    .   .   .   .    .   .   .   .
Select Priority Areas           LUPE TEAM  R       .  ===  .    .   .   .   .    .   .   .   .
Define Potential Communities    TA/LD/EA   R       .   === .    .   .   .   .    .   .   .   .
Plan Baseline Study             PMEU/TA            .   .===.    .   .   .   .    .   .   .   .
Define Priority Activities      TA/LD/EA           .   . ===    .   .   .   .    .   .   .   .
Survey (Baseline)               PMEU/TA/EA         .   .  ===== .   .   .   .    .   .   .   .
Rent Office Space               ADMON              13-Apr-92 == .   .   .   .    .   .   .   .
Assign Personnel To New Areas   LD                 .20-Apr-92 ==.   .   .   .    .   .   .   .
Open New Agencies               LD/AID     R       .20-Apr-92 ==.   .   .   .    .   .   .   .
Preliminar POA (New Agencies)   PMEU/TA/EA         . 27-Apr-92 ==   .   .   .    .   .   .   .
Training & Team Building        TA/EA              .   4-May-92 =========   .    .   .   .   .
```

O Done === Task - Slack time (==---), or
C Critical +++ Started task Resource delay (---==)
R Resource conflict M Milestone > Conflict
p Partial dependency
Scale: Each character equals 1 week

Schedule Name: IMPLEMENTATION PLAN 1992
Project Manager: GOH/MNR USAID

	Who	Status	92 Jan 2	Feb 3	Mar 2	Apr 1	May 1	Jun 1	Jul 1	Aug 3	Sep 1	Oct 1	Nov 2	Dec 1
Install Demostrative Plots	EA	R		.	4-May-92	==========	==========	==========	==========	==========		.	.	.
Look for Demostrative Plots	EA	R		.	4-May-92	==========	==========	==========	==========	==========	==========	==========	==========	.
Assign Resources To New Areas	LD/AID			.	.	26-May-92	==========	==========	==========	==========	==========	==========	==========	==========
Select Contact Farmers	EA	R		.	.	.15-Jun-92	==========	==========	==========	==========	==========	==========	==========	==========
Prepare Annual Internal Evalua	PMEU/TA/EA			.	.	.	.	.	.	.	2-Nov-92	=====		
Annual Evaluation	LUPE TEAM	RC		.	.	.	.	.	.	.	.	7-Dec-92.==		
POA 1993	LUPE TEAM	RC		.	.	.	.	.	.	.	.	7-Dec-92.==		

D Done
C Critical
R Resource conflict
p Partial dependency
=== Task
+++ Started task
M Milestone
- Slack time (==---), or
Resource delay (---==)
> Conflict
Scale: Each character equals 1 week

Schedule Name: IMPLEMENTATION PLAN 1993
Project Manager: GOH/MNR USAID

```
                                                  93
                                                  Jan FebMar  Apr May Jun  Jul Aug Sep  Oct Nov Dec
                                Who     Status    4   1   1    1   3   1    1   2   1    1   1   1
Select NGO For Developing Area  LD/AID            ====.  .    .   .   .    .   .   .    .   .   .
Extension Activities            EA          RC    ==========================================
Monitor Demostrative Plots      PMEU/IA      C    ==========================================
Monitor LUPE Activities         PMEU         C    ==========================================
TA Support to Extension Agents  TA           C    ==========================================
Monthly Programing & Evaluatin  PMEU/EA/TA        =  .    .   .   .    .   .   .    .   .   .
Install New Demostrative Plots  EA          R     .  3-May-93 ==================   .   .   .
Select contact Farmers          EA          R     .  3-May-93 ==================   .   .   .
Train Contact Farmers           PMEU/EA/TA        .  3-May-93 ==================   .   .   .
Audit                           MNR/AID           .  .    3-Jun-93.==============   .   .   .
Prepare Anual Internal Evalua   PMEU/EA/TA        .  .    .   .   .    .   .   1-Nov-93 ====.
Anual Internal Evaluation       PMEU/EA/TA  R     .  .    .   .   .    .   .   .   2-Dec-93 ===
POA 1994                        PMEU/EA/TA  R     .  .    .   .   .    .   .   .   2-Dec-93 ===
```

D Done
C Critical
R Resource conflict
p Partial dependency
Scale: Each character equals 1 week

=== Task
+++ Started task
M Milestone

- Slack time (==---), or
Resource delay (---==)
> Conflict

Schedule Name: IMPLEMENTATION PLAN 1994
Project Manager: GOH/MNR USAID

```
                                          94
                                          Jan FebMar  Apr May Jun  Jul Aug Sep  Oct Nov Dec
                          Who     Status  4   1  1    1   2   1    1   1   1    3   1   1

Expansion to New Regions                  M   .  .    .   .   .    .   .   .    .   .   .
Extension Activities      LUPE TEAM   RC  ==============================================
Monitor Demostrative Plots PMEU/EA     C  ==============================================
TA Support to Extension Agents TA     RC  ==============================================
Select New Region         TA/LD/EA        ===.  .    .   .   .    .   .   .    .   .   .
Gather Secondary Information PMEU     R     ======    .   .   .    .   .   .    .   .   .
Monthly Programing & Evaluatin PMEU   R      =.  .    .   .   .    .   .   .    .   .   .
Characterization of New Area PMEU/TA          ====    .   .   .    .   .   .    .   .   .
Select and Hire New Personnel LD              ====    .   .   .    .   .   .    .   .   .
Define Materials and Equipment TA     R       == .    .   .   .    .   .   .    .   .   .
Procurement of Equipment  LD/AID      R       .==============.    .   .   .    .   .   .
Procurement of Materials  LD/AID      R       .==============.    .   .   .    .   .   .
Prepare External Evaluation PMEU      R       . ========  .   .    .   .   .    .   .   .
Reconosence Visit         TA/LD/EA    R       . ===   .   .   .    .   .   .    .   .   .
Select Priority Areas     LUPE TEAM   R       .  ===  .   .   .    .   .   .    .   .   .
Define Potential Communities TA/LD/EA R       .  .==  .   .   .    .   .   .    .   .   .
Plan Baseline Study       PMEU/TA         .  . == .   .   .    .   .   .    .   .   .
Define Priority Activities TA/LD/EA       .  .  ==.   .   .    .   .   .    .   .   .
Survey (Baseline)         PMEU/TA/EA      .  .   =====.   .    .   .   .    .   .   .
Rent Office Space         ADMON           13-Apr-94 =  .   .    .   .   .    .   .   .
External Evaluation                       15-Apr-94 ========   .   .   .    .   .   .
Assign Personnel To New Areas LD          .20-Apr-94 =.   .    .   .   .    .   .   .
Open New Agencies         LD/AID      R   .20-Apr-94 =.   .    .   .   .    .   .   .
```

D Done === Task - Slack time (==---), or
C Critical +++ Started task Resource delay (---==)
R Resource conflict M Milestone > Conflict
p Partial dependency
Scale: Each character equals 1 week

Schedule Name: IMPLEMENTATION PLAN 1994
Project Manager: GOH/MNR USAID

	Who	Status	94 Jan 4	Feb 1	Mar 1	Apr 1	May 2	Jun 1	Jul 1	Aug 1	Sep 1	Oct 3	Nov 1	Dec 1
Preliminar POA (New Agencies)	PMEU/TA/EA		.	27-Apr-94 =		.	.	.	.	.	.	.	.	.
Training & Team Building	TA/EA		.	.4-May-94.=========				.	.	.	.	.	.	.
Install Demostrative Plots	EA	R	.	.4-May-94.==========								.	.	.
Look for Demostrative Plots	EA	R	.	.4-May-94.==========										.
Assign Resources To New Areas	LO/AID		✓	.	26-May-94 ==========									
Select Contact Farmers	EA	R	.	.	15-Jun-94 ==========									
Prepare Annual Internal Evalua	PMEU/TA/EA		.	.	.	.	.	.	.	.	2-Nov-94 =====			
Annual Evaluation	LUPE TEAM	R	.	.	.	.	.	.	.	.	.	7-Dec-94 ===		
POA 1995	LUPE TEAM	R	.	.	.	.	.	.	.	.	.	7-Dec-94 ===		

D Done
C Critical
R Resource conflict
p Partial dependency
Scale: Each character equals 1 week

=== Task
+++ Started task
M Milestone

- Slack time (==---), or
Resource delay (---==)
> Conflict

Schedule Name: IMPLEMENTATION PLAN 1995
Project Manager: GOH/MNR USAID

```
                                                  95
                                                  Jan FebMar  Apr May Jun  Jul Aug Sep Oct  Nov Dec
                                Who     Status    2   1   1    3   1   1    3   1   1   2    1   1

Select NGO For Develop Areas    LD/AID            ====.  .    .   .   .    .   .   .   .    .   .
Extension Activities            EA          RC    ==================================================
Monitor Demostrative Plots      PMEU/IA      C    ==================================================
Monitor LUPE Activities         PMEU         C    ==================================================
TA Support to Extension Agents  TA           C    ==================================================
Monthly Programing & Evaluatin  PMEU/EA/TA        =  .    .   .   .    .   .   .   .    .   .
Install New Demostrative Plots  EA          R     .  3-May-95 ==================  .    .   .
Select contact Farmers          EA          R     .  3-May-95 ==================  .    .   .
Train Contact Farmers           PMEU/EA/TA        .  3-May-95 ==================  .    .   .
Prepare Annual Internal Evalua  PMEU/EA/TA        .  .    .   .   .    .   .   1-Nov-95 ====.
Annual Internal Evaluation      PMEU/EA/TA  R     .  .    .   .   .    .   .   .   4-Dec-95 ===
POA 1996                        PMEU/EA/TA  R     .  .    .   .   .    .   .   .   4-Dec-95 ===
```

```
D Done                  === Task          - Slack time (==---), or
C Critical              +++ Started task    Resource delay (---==)
R Resource conflict       M Milestone     > Conflict
p Partial dependency
Scale: Each character equals 1 week
```

Schedule Name: IMPLEMENTATION PLAN 1996
Project Manager: GOH/MNR USAID

	Who	Status	96 Jan 2	Feb 1	Mar 1	Apr 1	May 1	Jun 3	Jul 1	Aug 1	Sep 3	Oct 1	Nov 1	Dec 2
Extension Activities	EA	RC	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
Monitor Demostrative Plots	PMEU/IA	C	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
Monitor LUPE Activities	PMEU	C	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
TA Support to Extension Agents	TA	C	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========	==========
Monthly Programing & Evaluatin	PMEU/EA/T+		=	.	.	.	.	.	.	.	.	.	.	.
Final Audit	MNR/AID	R	.	========	========	.	.	.	.	.	.	.	.	.
Final External Evaluation	MNR/AID	R	.	========	========	.	.	.	.	.	.	.	.	.
Evaluate Demostrative Plots	EA	R	.	3-May-96.	==========	==========	==========	==========	==========	==========	==========	.	.	.

D Done
C Critical
R Resource conflict
p Partial dependency
Scale: Each character equals 1 week

=== Task
+++ Started task
M Milestone

- Slack time (==---), or
Resource delay (---==)
> Conflict