

PROJECT PAPER

**FARMING SYSTEMS  
DEVELOPMENT  
PROJECT -  
EASTERN VISAYAS**



PROJECT PAPER

FARMING SYSTEMS DEVELOPMENT PROJECT - EASTERN VISAYAS

492-0356

Office of Rural & Agricultural Development  
USAID/Philippines  
August 27, 1981

ACTION MEMORANDUM FOR THE DIRECTOR

September 14, 1981

THRU : Ms. Mary C. Kilgour/OD MK

FROM : Mr. Donald L. Pressley/RLA JDE

SUBJECT : Project Authorization

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This memorandum is to request your authorization for a loan not to exceed \$1,600,000 and a grant not to exceed \$1,400,000 from the Section 103, Agriculture, Rural Development and Nutrition appropriation to the Republic of the Philippines, for the Farming Systems Development Project - Eastern Visayas, No. 492-0356.

Discussion: As transmitted by State Cable 029263 dated February 3, 1979, the Assistant Administrator for Asia redelegated to you in Redlegation No. 133.1 the authority to approve project assistance in amounts not to exceed \$5,000,000 life-of-project funding. This authority was conditioned on your receiving a PID approval which agrees to project authorization at post, and upon receiving appropriate review by AID technical and legal staff. On November 15, 1981, by means of State Cable 305733, AID/W approved the PID for this project and concurred in project authorization. On July 14, 1981 the Mission technical staff reviewed the project paper for this project and concluded that it is technically sound and in compliance with AID technical requirements. On my return from home leave, I also reviewed the project paper and concur that the project meets AID legal requirements. A copy of the final project paper is attached for your consideration.

On September 4, 1981 the Government of the Republic of the Philippines officially requested our assistance in support of this project (copy attached), which was the last requirement necessary for you to authorize the project. Your staff, both legal and technical, now believe that this project is ready for authorization.

Waivers: No waivers to AID normal implementation procedures are required for this project.

Justification to the Congress: We have been informed informally that a notification of our intent to obligate funds this fiscal year for this project was transmitted to Congress on September 9, 1981. No obligation, therefore, may occur until September 24, 1981 at the earliest, and we should receive a cable from Washington notifying us that the period for Congressional review has expired before we proceed with project negotiation.

Recommendation: That you sign the following documents which will authorize this project and set into motion the execution of a Project Agreement with the Government of the Philippines: (a) the attached

Project Authorization; (b) the cable to AID/W notifying them that the project has been authorized; (c) the Clearance Sheet approving the Agreement for this project; and (d) the Clearance Sheet of the letter transmitting the final draft Agreement to the Government for its consideration.

APPROVED : AM Schwarzwald

DISAPPROVED : \_\_\_\_\_

DATE : 23 Sept. '81

Attachments: a/s

CLEARANCE: ORAD/JEdwards [Signature]  
              /THobgood [Signature]  
              PO/GLaudato [Signature]  
              OCD/WFMcDonald [Signature]  
              /MHacker [Signature]  
              CO/HCollamer [Signature]  
              OPHN/SSinding [Signature]  
              OFFPVC/WCarter [Signature]

DLP:msh  
OLA:9/14/81

## PROJECT AUTHORIZATION

Name of Country/Entity: Philippines      Name of Project : Farming Systems Development Project - Eastern Visayas

Number of Project: 492-0356

Number of Loan : 492-T-066

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, and in accordance with my authority as conveyed in State Cable 029263 dated February 3, 1979, I hereby authorize the Farming Systems Development Project - Eastern Visayas for the Republic of the Philippines (Cooperating Country) involving planned obligations of not to exceed \$1,600,000 in loan funds and \$1,400,000 in grant funds over a four (4) year period from 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.

2. The Farming Systems Development Project - Eastern Visayas will assist the Philippine Government in its effort to establish a proven mechanism for adapting rainfed, agricultural technologies to the resource conditions found in Region VIII and to disseminate such technology as appropriate.

3. The Project Agreement which may be negotiated and executed by designated Mission staff and executed by myself, the Ambassador, or someone acting in my position per the authority so 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.

4. a. Interest Rate and Terms of Repayment.

The Cooperating Country shall repay the Loan to A.I.D. in U.S. Dollars within forty (40) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (a) two percent (2%) per annum during the first ten (10) years, and (b) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the Loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services.

Loan-financed goods and services, except for ocean shipping, under the project shall have their source and origin in the Cooperating Country or in countries included in A.I.D. Geographic Code 941 and grant-financed goods and services shall have their source and origin in the Cooperating Country or in the United States, 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 or the Cooperating Country.

5. No waivers to A.I.D. regulations are required at this time.

Clearances:

Typed Name	Office Symbol	Date	Initials
A. Mr. Donald L. Pressley	OLA	9/15	<del>DAF</del>
B. Dr. Ralph J. Edwards	ORAD	9/16	RJE 9/17 AWA
C. Mr. Thomas D. Hobgood	ORAD	9/16	T.D.H.
D. Mr. William F. McDonald	OCD	9/17	W.F.M.
E. Mr. Michael J. Hacker	OCD	9/22	M.J.H.
F. Mr. Harold W. Collamer	CO	9/18	H.W.C.
G. Mr. George A. Laudato	PO	9/21	G.A.L.
H. Ms. Mary C. Kilgour	OD	9/23	M.K.

Signature

AM Schwarzwald

Anthony M. Schwarzwald  
Director  
USAID/Philippines

Date

: 23 Sept. '81

AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**

1. TRANSACTION CODE  
 A = Add  
 C = Change  
 D = Delete  
 Amendment Number \_\_\_\_\_

DOCUMENT CODE  
 3

2. COUNTRY/ENTITY  
 Philippines

3. PROJECT NUMBER  
 492-0356

4. BUREAU/OFFICE  
 Asia  04

5. PROJECT TITLE (maximum 40 characters)  
 Farming Systems Development - Eastern Visayas

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)  
 MM DD YY  
 0  9  3  0  8  6

7. ESTIMATED DATE OF OBLIGATION  
 (Under 'B.' below, enter 1, 2, 3, or 4)  
 A. Initial FY  8  1 B. Quarter  4 C. Final FY  8  2

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

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	1993	180	2175	2820	180	3000
(Grant)	( 575 )	( )	( 575 )	( 1400 )	( )	( 1400 )
(Loan)	( 1420 )	( 180 )	( 1600 )	( 1420 )	( 180 )	( 1600 )
Other U.S. 1.						
Other U.S. 2.						
Host Country		661	661		2813	2813
Other Donor(s)						
<b>TOTALS</b>	<b>1993</b>	<b>841</b>	<b>2836</b>	<b>2820</b>	<b>2993</b>	<b>5813</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	113	070	070	---	---	1400	1600	1400	1600
(2)									
(3)									
(4)									
<b>TOTALS</b>								1400	1600

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)  
 245      020      080

11. SECONDARY PURPOSE CODE  
 123

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

A. Code	BS	R/AG	EQTY	PART	XII
B. Amount	N/A	N/A	N/A	N/A	N/A

15. PROJECT PURPOSE (maximum 480 characters)

To establish a proven mechanism for adapting rainfed, agricultural technologies to the resource conditions found in Region VIII and to disseminate such technologies as appropriate.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY  
 0  6  8  4       0  7  8  6

15. SOURCE/ORIGIN OF GOODS AND SERVICES  
 000     941     Local     Other (Specify) \_\_\_\_\_

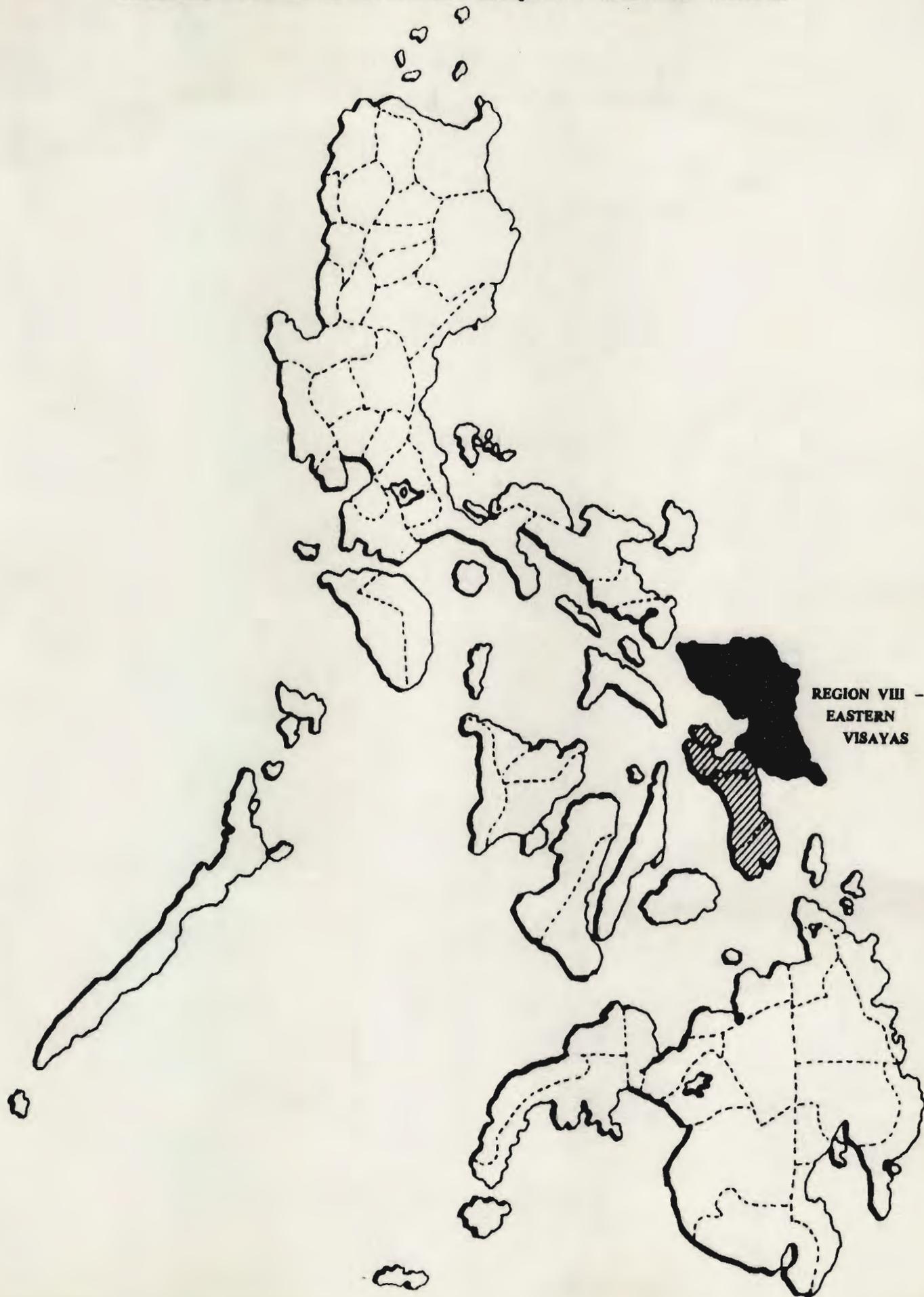
16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)

17. APPROVED BY

Signature AM Schwarzwald  
 Title Missim. Director  
 Date Signed MM DD YY  
 0  9  2  3  8  1

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

FARMING SYSTEMS DEVELOPMENT PROJECT - EASTERN VISAYAS



## PROJECT PAPER

### FARMING SYSTEMS DEVELOPMENT - EASTERN VISAYAS

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VI. APPENDIX I - Project Site Descriptions

## ACRONYMS

AID	- Agency for International Development
BNAS	- Baybay National Agriculture School
BIFAD	- Board for International Food and Agricultural Development
BAEx	- Bureau of Agricultural Extension
BAEcon	- Bureau of Agricultural Economics
BAI	- Bureau of Animal Industries
BCOD	- Bureau of Cooperative Development
BPI	- Bureau of Plant Industry
BS	- Bureau of Soils
CDSS	- Country Development Strategy Statement
Cavan	- 50 kg.
CLSU	- Central Luzon State University
CP	- Conditions Precedence
EVFSP	- Eastern Visayas Farming Systems Project
FSR	- Farming System Research
GOP	- Government of the Philippines
GRP	- Government of the Republic of the Philippines
HYV	- High Yielding Varieties
IAPMP	- Integrated Agricultural Production and Marketing Project
IBRD	- International Bank for Reconstruction and Development
IFB	- Invitation for Bid
IRRI	- International Rice Research Institute
M-99	- Masagana 99
MA-Reg. VIII	- Ministry of Agriculture-Region VIII
MAR	- Ministry of Agrarian Reform
MB	- Ministry of the Budget
MEC	- Ministry of Education and Culture
NEDA	- National Economic and Development Authority
NFAC	- National Food and Agriculture Council
PCARR	- Philippine Council for Agriculture and Resources Research
Peso	- Philippine currency      \$1 = ₱7.7
PID	- Project Identification Document
PIO/C	- Project Implementation Order/Commodities
RTC-RD	- Regional Training Center for Rural Development
SRMU	- Site Research Management Unit
SER/IT	- Bureau for Management/International Training/AID
SFS II	- Small Farmer System II Project
UPCA	- University of the Philippines College of Agriculture at Los Banos
UPLB	- University of the Philippines at Los Banos
USAID	- United States Agency for International Development
USAID/CSD	- USAID/Contract Services Division
USDA	- United States Department of Agriculture
VAC	- Visayas Agricultural College
VISCA	- Visayas State College of Agriculture

PROJECT PAPER

PHILIPPINES  
FARMING SYSTEMS DEVELOPMENT PROJECT - EASTERN VISAYAS

I. SUMMARY AND RECOMMENDATIONS:

A. Costs

Total Project Costs are as follows:

AID

Grant	\$1,400,000
Loan	1,600,000
Sub-Total	\$3,000,000

GOP

Budgetary Support	\$2,813,000
Grand Total	\$5,813,000

B. Purpose

The Government of the Philippines has requested USAID assistance in expanding the farming research work into the rainfed areas of Region VIII. The purpose of the project is to establish a proven mechanism for adapting rainfed, agricultural technologies to the resource conditions found in Region VIII and to disseminate such technologies as appropriate.

C. Description

The project will provide five (5) years of foreign exchange and local currency support to conduct on-site adaptive research for the development of farming systems (crops and animals) in Region VIII, and the institutional development of the Visayas State College of Agriculture and the Ministry of Agriculture's Region VIII office.

D. Analyses - Summary Findings

The analyses within the project paper conclude that the proposed project is technically, socially, economically, and financially feasible. The Implementation Plan is sufficiently developed to begin project implementation. Given that the activities to be undertaken in the project are not directly revenue producing the standard cost-benefit analyses is not appropriate. A cost-effectiveness analysis was conducted indicating the alternatives considered and areas where attempts

were made to minimize costs.

**E. Waivers**

Virtually all foreign exchange purchases will be made in the United States. However in cases where the U.S. is not the best source of technical advisory services, commodities or participant training, host country and Code 941 procurement is proposed. Moreover, should small amounts of Code 935 procurement be necessary (books, periodicals, equipment) waivers will be justified and issued on a case-by-case basis by the USAID Director.

**F. Statutory Requirements**

All Statutory Requirements have been met. See Annex J "Country Checklist".

**G. Recommendations**

That the project paper be approved and that AID assistance be authorized under loan/grant funding so that implementation can begin in FY 81.

## II. PROJECT DESCRIPTION

### A. BACKGROUND

A characteristic of recent agricultural programs in the Philippines has been a focus on production and marketing of single commodities. Examples of this approach are the MASAGANA 99 and MAISAN 77 programs, whose objectives have been to increase national rice and corn production respectively. These programs have been most successful in lowland, irrigated situations where household incomes depend primarily on single commodity production, where there is a defined market for that production, and where the technological and institutional constraints to production have received greater attention compared to more marginal agricultural areas. Farmers in rainfed areas, particularly areas economically unsuitable for monoculture, often find the single commodity programs irrelevant to their needs since the programs do not take into consideration the varied mix of crops and livestock they produce. Households in the areas find that economic survival depends upon achieving an optimum diversification of crop and livestock enterprises. In many instances, the benefits of improved technology which has been developed at international and national research centers has not reached these types of farmer-households. What is needed is a shift in emphasis from a single commodity focus to a resource endowment focus which analyzes the interaction between the farmer and the resource base he has to work with to increase production and income on his small land area.

The CDSS identifies small farmers in rainfed and upland areas as a major poverty group and points up a number of constraints affecting their ability to improve their living conditions. Most significant among these are: low-yielding rainfed technology for production systems in use; cost/price squeeze hampering farmer's adoption of more productive technology in traditional cropping systems and use of inappropriate farming practices in uplands which contributes to severe soil erosion and run-off. This is the first of a series of activities to be designed under the emerging Rainfed Resources Development portfolio of the Office of Rural and Agricultural Development. The project targets the farmers in rainfed and upland areas of Eastern Visayas and directs its efforts to a systematic attack on these constraints, taking explicitly into account their resource availabilities, cropping patterns, and the variability of agro-climatic zones.

The farming systems approach which has proven effective in other areas of the Philippines, as well as in other developing countries, will be used to adapt existing technologies to the resource conditions found in Region VIII. While the process is similar to other farming systems activities being coordinated by the Ministry of Agriculture, there are significant differences in project design which make this project contrast with those farming systems projects currently being implemented. (See Technical Feasibility, page 11).

B. SUMMARY OF PROPOSED GOAL, PURPOSE, AND OUTPUTS

- (1) The long-term goal of this project is to improve the livelihood of the small farmers in selected rainfed areas of Region VIII. This goal is consistent with the Five-Year Development Plan of the GOP and supports the objectives articulated in USAID's FY 82 Country Development Strategy Statement. The achievement of this goal can be measured in terms of farmer-households spending more time productively employed on the farm, increase in consumption levels of farm-grown produce, and an increase in the levels of marketable surplus produced on the farm.
- (2) The project's purpose is to establish a proven mechanism for adapting rainfed, agricultural technologies to the resource conditions found in Region VIII and to disseminate such technologies as appropriate. Conditions indicating that the project purpose has been achieved include improved rainfed farming systems being tested and selected for area-wide replication and the farming systems team at the Visayas State College of Agriculture (VISCA) is providing technical support to the research units functioning in the field. Additionally, the Ministry of Agriculture (MA) provincial technical staff (BPI, BAI, BAEx, NPAC) are participating in the research units and providing technical and administrative support, and the farm-households are utilizing all or part of the improved technologies.
- (3) The outputs of the project are:
  - (a) Six (6) field research/demonstration sites will be established and functioning. Farmer cooperators will be participating in the research in conjunction with an interdisciplinary team located at each site. Combined researcher and farmer managed trials will be completed along with assessment of market opportunities and distribution of benefits, resulting in improved farming systems which can be disseminated to other farmers in Region VIII.
  - (b) The MA staff will have increased its capacity to plan, coordinate and undertake farming systems research and disseminate the improved technologies.
  - (c) The leading agricultural college in Leyte, VISCA, will have improved its administrative and research capacity to support farming systems development in Region VIII. VISCA will have also trained farmers, researchers, and extension workers to undertake farming systems research.

C. PROJECT ACTIVITIES

The project strategy will utilize the farming systems research methodology (FSR) which represents a "bottom up" approach in

developing and disseminating agricultural technologies. FSR emphasizes supervised rainfed production trials, planned and carried out by and with farmers on their own fields. It is not a substitute for the more traditional research approaches and provides feedback which can help refine or redefine research priorities being conducted at these centers. The strength of the approach is that it readily fosters the adoption by small farmers of improved technologies since the farmers themselves are involved in the development and testing of such technologies. (Please see technical feasibility section for more detail regarding the FSR methodology).

In carrying out the project's strategy, the following general steps will be pursued:

- (1) Six subgroups of farmer-households (here referred to as recommendation domains) have been identified and the major task will be to develop farming systems appropriate to each. Farming families in each subgroup have similar farming activities, social customs, access to support systems, comparable marketing opportunities and similar present technologies and resource endowments.
- (2) A baseline study will be conducted by the Site Research Management Unit field teams in each recommendation domain to gather information on soils, topography, rainfall, temperature, irrigation and other infrastructure. Information will be gathered using the household as the focus; and will examine existing farming patterns, cultural practices, constraints on production, available farm resources, including labor availability for on and off farm employment, tenure patterns, credit access and practices, and on and off-farm sources of income. The purpose of the baseline study is to identify constraints and opportunities of the current farming system in each area. This information will be used to design research trials for each recommendation domain. More detailed socio-economic and other special studies may be conducted separately.
- (3) A multi-disciplinary research staff organized into Site Research Management Units (SRMUs) composed of local personnel from the Ministry of Agriculture's (MA's) line agencies (BAEx, BAI, BPI, BAEcon, BS and possibly others) and local agricultural colleges or high schools will be formed. Each unit will be headed by a coordinator from one of MA's line bureaus and have a person from the BAEx as a team member. Farmers will be part of the team involved in the planning and decision making process. Farmers will be contracted for use of a portion of their land. In cases where the farmer is not the owner of the land, individual agreements will be made with the landowners which will compensate the owner on a fixed return basis with the rent based on previous normal rental income. Production inputs will be provided by the project in a similar contractual arrangements. At this stage,

the managerial inputs will be provided by the research team with the labor provided by the farmer-cooperator. This is referred to as research-managed trials.

- (4) VISCA, as well as the Regional MA Technical Staff, in consultation with the Site Research Management Units and participating farmers, will recommend the production technologies from those available which have potential application in the target area. Emphasis will be placed on improving the farmers existing systems although the introduction of new plant and animal materials may be appropriate depending on evaluation of the baseline data. In cases where solutions to the identified constraints are not available for testing in farmers fields, VISCA will conduct research trials under more controlled conditions on the college campus.
- (5) An evaluation of trials will be conducted following harvest. Special concern also will be directed at the farmer's capabilities and skills, access to resources, alternative opportunities, aspirations for himself and family, and his beliefs and values so that relevant socio-economic factors may also be analyzed.
- (6) Trials/Experiments will be repeated over several seasons to demonstrate adaptability for new technologies. Based on experience and results, farmers will decide whether or not to increase the size/extent of their involvement and whether to expand the technology developed on the contracted portion of his land to other areas of his farm. The final measure of success will be improvement in farmer's traditional farming systems that are adopted spontaneously by other farmers in communities contiguous to the test area, or which can be extended to other farmers through normal extension channels, and that have net positive effects on farm household employment, nutrition, income and livelihood.
- (7) At the end of two years of implementation on research sites located within the six recommendation domains, the extension service will take the results that seem promising and test them at multilocational sites. These multilocational trials will be conducted on farmer's fields within the same recommendation domain but some distance away from the original research site. This is done to test the technologies found promising at the research sites under more realistic conditions. At this stage the farm family provides their own land, labor, capital, and management inputs. This is referred to as farmer-managed trials.
- (8) One of VISCA's major activities in this program will be the training of SRMU research and extension workers as well as farmers. Training programs will be directed at acquainting participants with the research methodologies to be used in

farmers' fields, and the operation and organization of the SRMUs. Training under this project will also be undertaken for the purposes of upgrading the economic research capabilities of selected VISCA and MA staff, and improving similar skills of SRMU workers assigned to do economic analyses.

- (9) It is anticipated that during the third year of the project an intensive evaluation will take place to identify second generation issues related to wider extension of the new technologies. The information gained from this evaluation and from other special studies undertaken as part of the project could form the basis for a follow-on activity. This follow-on activity would focus on the development of supporting systems and might be financed by the GOP with assistance from a foreign donor. These supporting systems could include, but not be limited to cooperatives, agricultural credit, extension services, processing, storage, and marketing.

#### D. BENEFICIARIES

The direct beneficiaries of this project are an estimated 360 small farm households in Region VIII, who will adopt the improved farming systems developed under the project. It is expected that the adoption of these new practices will lead to improved livelihood meaning increased self-employment, improved productivity, increased household income and/or improved family nutrition. Based on experience in other areas of the Philippines where adaptive research is being carried out, we expect that indirect beneficiaries (households) adapting portions of the technology will be considerable.<sup>1/</sup> These households are not considered a part of the direct beneficiary group, but would be subject to evaluation as indirect adopters of new technologies tested. It is important to note that the intent of this project is to establish a mechanism for developing and testing dissemination of improved rainfed technologies meaning that the number of cooperator-households will initially be small.

The majority of these beneficiaries are expected to be the small farm owner-operators, tenants and caretakers of landholdings in the Region who typically provide for their food needs and supplement their income by cultivating small areas of food crops. These food crops are either intercropped under coconut, other tree crops or on small rainfed parcels near their homes. They usually include rice, corn, root crops and vegetables. These farm households generate the bulk of their family incomes either from financial remuneration

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<sup>1/</sup> KABSAKA experience in Iloilo province and related research being conducted by IRRI in the Philippines show an adoption ratio of 100:1. A more conservative rate will apply in this project because of the diverse topography, lower population density and large size of the recommendation domains.

for labor or as a share of production (typically 1/3 to 1/6 of the coconut production) and usually all the proceeds of food crops grown from intercropping. Land tenancy arrangements vary widely for these beneficiaries. The areas of eastern Leyte, which are populated by Waray speaking people, as well as the Cebuano speaking areas of Leyte and Southern Leyte are characterized by a prevalence of small scale owner-operatorship and leasehold arrangements. Northwestern Leyte has the most large scale landholdings and absentee ownership. In Samar, which is also populated by Waray speakers, the landownership structure is both more varied and fluid, i.e. there are major large landholdings planted to coconut or worked as timber concessions. These areas lack accessibility which encourage both informal tenancy arrangements and occupancy by squatters. (Please see Annex C(1) on Land Tenure Issues).

In the hilly and mountainous areas where coconut or tree crops have not been established, there are groups of indigenous, marginal kaingin (swidden) farmers. In these areas, kaingin farmers plant garden size plots of root crops, vegetable crops and often corn, as well as practicing rudimentary culture of bananas and even pineapple.

#### E. RELATION TO CDSS STRATEGY AND GOP PRIORITIES

This project is a direct outgrowth of the FY 82 CDSS diagnosis of poverty, the regionally focussed employment strategy, and the development priorities of Eastern Visayas -- Region VIII - as reflected in its Regional Development Plan (RDP). It forms an integral part of the emerging project portfolio to carry out the Mission's assistance strategy.

#### Project Relationship to Poverty Diagnosis

The CDSS identifies small farmers in rainfed and upland areas as a major poverty group and points up a number of constraints affecting their ability to improve their living conditions. Most significant among these are: low-yielding rainfed technology for productive systems in use; cost/price squeeze hampering farmer's adoption of more productive technology in traditional cropping systems and use of inappropriate farming practices in uplands which contributes to severe soil erosion and run-off. The project targets the farmers in rainfed and upland areas of Eastern Visayas and directs its efforts to a systematic attack on these constraints, taking explicitly into account their resource availabilities, cropping patterns, and the variability of agro-climatic zones.

#### Project Relationship to CDSS Objectives and Strategy

The project relates directly to the first CDSS objective of promoting more productive agricultural employment in rainfed areas. The CDSS indicates that increases in future agricultural employment will have to come from both intensifying and diversifying current rainfed production and that an appropriate area for USAID is the

development and diffusion of more productive technologies adapted to rainfed farming systems. The project addresses the problems of intensifying and diversifying rainfed production and, as stated early in the paper, a follow-on project is planned that will focus on the diffusion of the more productive farming systems.

#### Project Relationship to Regional Focus

The CDSS points out that a USAID program with regional emphasis and priorities requires the strengthening of the capacity of local institutions, including those which support appropriate programs for rainfed areas. Region VIII has been selected for concentrated USAID assistance because of its depressed living conditions. This project will work directly with the MA Regional Office and its line bureaus, and increase the capability of farm cooperators to profitably utilize improved farming systems consistent with constraints noted above. In addition, the project will further strengthen VISCA, the leading agricultural college in the region, which has the capacity to train farmers and necessary personnel, in farming systems development, test alternative farming systems and administer broad, diverse agricultural programs in research and production.

#### Project Priority within GOP Strategies

The project is consistent with the Five-Year Philippine Development Plan and the Regional Development Plan which stress the promotion of social development and social justice through the creation of productive employment opportunities, reduction in income disparities and improvement of the living standards of the poor; and the attainment and maintenance of self-sufficiency in food.

#### Project Relationship to Other USAID Projects

At least 3 other USAID projects now being designed are likely to reinforce the interventions proposed under this project.

The Local Resources Management (LRM) Project includes Eastern Visayas and is designed to improve local government capacity to understand local poverty dynamics and to plan and implement strategies to address the needs of the poor in their constituencies. LRM subsumes the Regional Poverty Analysis initially proposed as a separate project. LRM can contribute in two ways to the Eastern Visayas Farming Systems Project. First, by generating more comprehensive data about farmers in rainfed and upland areas, their resources, their production strategies, their constraints, which will aid in tailoring farming systems technologies closer to their needs and capabilities. Secondly, by improving local government capacities we can expect local governments to play a stronger role in this project as well as to undertake complementary projects at the local level.

The Small Farmer Systems II Project (SFS II) proposes, among other things, expansion of communal irrigation and other small-scale infrastructure in rainfed and upland areas in the CDSS regions. Both SFS II and EVFS projects target the small rainfed farmer as beneficiaries. The SFS II will aid these farmers by bringing their land under irrigation where irrigation potential exists while the EVFS project will develop appropriate rainfed technologies in areas where irrigation is not possible.

The Rural Enterprise Development Project aims to develop appropriate systems that promote labor intensive private enterprises in selected, profitable product lines with growth potential in the CDSS regions. As enterprises expand, especially at the micro scale, there is a good likelihood some will be agriculturally related offering market and possibly seasonal employment opportunities or improved supply of agricultural inputs to farmers affected by the EVFS project.

As these other projects are implemented, every effort will be made to draw in their resources to improve the overall impact of the EVFS and vice versa.

### III. PROJECT SPECIFIC ANALYSES

#### A. TECHNICAL FEASIBILITY

##### 1. Background

The agricultural research system in the Philippines is one of the most advanced in Asia. The University of the Philippines at Los Banos (UPLB) and the International Rice Research Institute (IRRI) have strong research capabilities which are recognized throughout Asia and indeed worldwide. These capabilities took years to develop. A recent report characterizes the 1948 to 1962 period as one of institution building for the Philippine agricultural research system<sup>1</sup>. During this period, the University of the Philippines College of Agriculture at Los Banos (UPCA) attained its capacity with assistance from international agencies. Also, by 1962 the Bureau of Plant Industry had developed significant research capability and had made relatively large investments in land and field plots. During the 1962-1972 period, attention was given to establishing International Research Centers. This was the first decade of the International Rice Research Institute's operations, a period when high yielding varieties were developed and the green revolution "euphoria" had taken hold. The period was also a high point in the development of UPCA. Many of the Ph.D. fellows had returned and the college developed strong research and graduate programs. During this time, UPCA contributed greatly to improve rice production. The fact that C4-64 was developed at UPCA at the same time as IR-8 at IRRI, and was probably a more important variety is not widely known. After 1972 and until the present, efforts were made to fine tune and continue to develop the national agricultural research system. During this period the Philippine Council for Agricultural and Resources Research was established, regional agricultural research centers were built, and the UPCA was reorganized as the University of the Philippines at Los Banos (UPLB). The major commodity programs such as rice, corn, rootcrops, sugar, and coconut continued to develop during this time.

Also, in early 1973 the Masagana 99 program was launched, an all-out nationwide effort to extend the High Yielding Variety (HYV) technology across the countryside and increase rice production. In 1975 the Maisan 77 program was initiated, another

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<sup>1</sup>Much of the background section draws on: Evenson, Waggoner, Bloom "Agricultural Research Progress in the Philippines", Unpublished Evaluation Report 1980.

nationwide effort to extend improved technology for corn and increase the nation's corn production. These programs, particularly the Masagana 99 program, were appropriate at the time and successful in increasing the countries' grain production. Indeed, by 1977, the country had achieved a degree of self-sufficiency in rice production.

In recent years interest in farming systems research has been growing. While recognizing the importance of continuing basic research organized along commodity lines, the GOP has also recognized the need and advantages of pursuing the farming systems research approach. Part of this interest is an outgrowth of IRRI's activity in cropping systems as well as the current worldwide interest in research adapted to the needs of small farmers. More fundamentally, however, the GOP's interest in FSR comes from the realization that many farmers, particularly in rainfed, upland environments have not benefitted from recent technological innovations. In addition, the proper utilization of rainfed, upland resources is becoming a critical resource management issue in the Philippines and interest in developing appropriate, sustainable, technologies for these areas is growing. The largest cropping systems programs in the Philippines are the Multiple Cropping Program at UPLB, the Ministry of Agriculture's Second Rural Development Land Settlement Project, the IRRI-PCARR sponsored KABSAKA project in Iloilo and the Integrated Agricultural Production and Marketing Project (IAPMP) which is doing adaptive research (technological packaging) in Central Luzon. Like the Land Settlement Project and Tech Pack development work at CLSU, the KABSAKA program is a combination of adaptive research and extension. After completing adaptive trials with farmer-cooperators, the KABSAKA program arrived at a technology which allows farmers to change from their traditional system where one crop of rainfed rice is planted possibly followed by one upland crop, to a two rice crop, one upland crop, cropping system. This system is limited to areas with long rainy season and to lower positions in the landscape where some degree of water control is possible. It is recognized, however, that the present farming systems in the Eastern Visayas are far more varied and complex compared to those in Iloilo where the KABSAKA program was initiated. Nevertheless, the cropping systems research approach employed by the KABSAKA program has wide applicability throughout the country and has proved useful in developing location - specific appropriate technologies.

While the process to be followed in this project is similar to other farming systems activities being coordinated by the Ministry of Agriculture there are several features of this project which are different than those farming systems projects currently being implemented. First, extension and research personnel will be working together on the field teams from the outset thus strengthening the linkage between the two. Secondly the field teams will be conducting research directly with the

farmer cooperators from the beginning rather than starting on-campus or within the experiment station and then moving to the farm level for verification. Finally, the project will utilize the reorganization of the Ministry of Agriculture which integrated its separate bureaus under the leadership of a single regional director. It is expected that by incorporating the above features into the project design that the time and resources required to move from the research to the dissemination stage will be minimized. Before describing in detail the farming systems research methodology to be utilized in this project, it may be useful to examine briefly what is meant by a farming system.

## 2. Defining a Farming System<sup>2</sup>

A system is a "regularly interacting or interdependent group of items forming a unified whole". A farming system therefore is the result of the interaction of a number of interdependent components. At the center of the system is the farm family who allocates different quantities and qualities of land, labor, capital and management to crop, livestock, and off-farm enterprises in a manner which, given the knowledge the household possesses, will maximize the attainment of the families' goals.

Figure 1 is illustrative of the factors which impact upon the decisions the farm family makes which result in its individual farming system. The total environment in which the family operates can be divided into the human element and the technical element<sup>3</sup>.

The technical element reflects what the potential farming system can be and is composed of physical and biological factors. Physical factors relate to water, soil, solar radiation, temperature, etc. while biological factors relate to crop and animal physiology, disease, insect attack etc. In the past most of the attention has been given to the technical element and technical scientists have been successful in modifying the technical element by manipulating the physical factors such as developing irrigation methods or developing chemical techniques such as fertilizer application and manipulating the biological factors such as developing high yielding and disease resistant crop varieties.

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<sup>2</sup>This section draws heavily from:  
Norman, DW. 1980. "The Farming System Approach: Relevancy for the Small Farmer". MSU Rural Development Paper No. 5. East Lansing: Department of Agriculture.

<sup>3</sup>Norman, DW. 1976. "The Social Scientist in Farming Systems Research", Paper presented at Workshop on Farming Systems Research in Mali, November 1976, Institut d' Economie Rurale, Bamako, Mali.

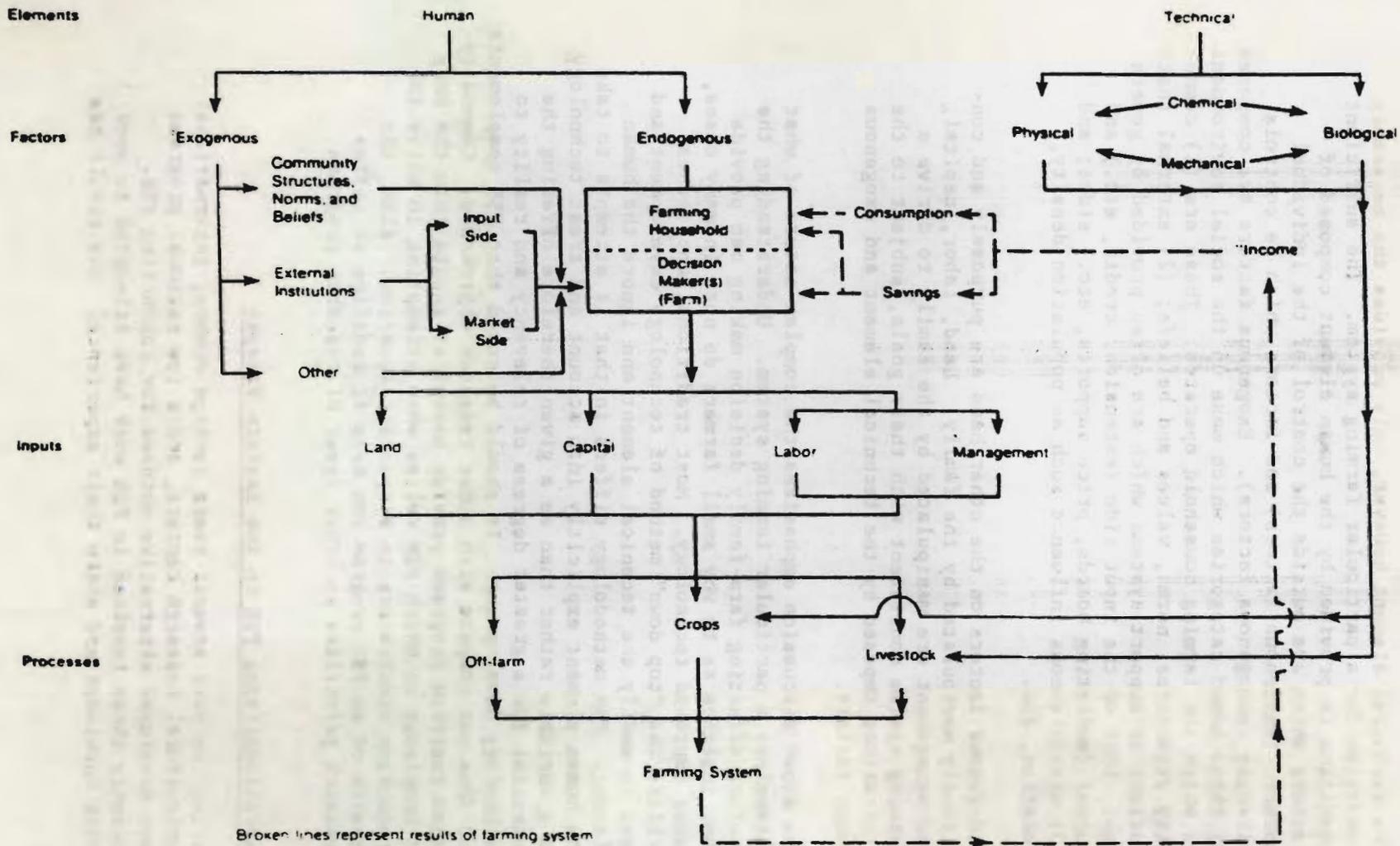


Figure 1 Schematic Representation of Some Determinants of the Farming System

The technical element however, only provides the necessary condition for a particular farming system. The sufficient condition is provided by the human element composed of factors which are outside the control of the individual farmer (exogenous factors) and factors which he controls directly (endogenous factors). Exogenous factors are composed of three broad categories which make up the social environment in which the farming household operates. These are (1) community structures, norms, values and beliefs; (2) external institutions or support systems which are often provided by government, both on the input side (extension, credit, etc.) and output (marketing boards, price supports, etc.) sides; and (3) miscellaneous influence such as population density, location, etc.

Endogenous factors on the other hand are purposely and consciously manipulated by the family. Land, labor, capital, and management are manipulated by the family to derive a farming system consistent with their goals, subject to the limitations imposed by the technical element and exogenous human factors.

The above discussion emphasizes the complex nature of what determines a particular farming system. Understanding the factors affecting farm-family decision making can provide some insights as to why small farmers do not, in many cases, adopt improved technology. Most traditional approaches utilize the "top down" method of technology development and tend to modify the technical element and ignore the human element. FSR methodology differs in that it attempts to take the human element explicitly into account and treat technology as a variable rather than as a given therefore offering the potential for a greater degree of relevancy and reality to technology development. It should be noted that FSR complements and does not compete with other research approaches. Commodity-based research programs provide essential inputs into the body of knowledge on which FSR relies when attempting to solve the production constraints in a specific location. Also, the results of an FSR program can help to redefine or refine research priorities in other types of research programs.

### 3. Operationalizing FSR in the Eastern Visayas

During the past several years foreign donors, international agricultural research centers, and a few national programs have developed alternative methods for conducting FSR. Recently those involved in FSR work have attempted to pool their knowledge and share their experience. The result has

been a degree of consensus on the general procedures required for FSR<sup>4</sup>. The design team has drawn from this knowledge and has identified the following stages and procedures which will be carried out during the course of the project.

(a) Selection of Target Areas

One of the first tasks will be to decide the target areas in the region where the research will be carried out. Due to AID requirements that a complete social soundness analysis be undertaken, the project design team has already begun this process and identified six potential sites for project implementation. The team selected six areas based primarily on the predominant farming system in the area and its potential, for representing a wider agricultural zone (see Annex C(2) on Methodology for Site Selection). Grouping farmers into relatively homogeneous populations based on predominant farming systems was felt justified by the team for the following reasons: (1) The farmers' existing system is an indication and manifestation of the exogenous natural, economic, and cultural circumstances and his own priorities and resource capabilities; (2) Farmers with similar farming systems will have similar researchable problems and the same new technologies will be relevant to the group; and (3) the existing farming system is the starting point or building block from which any changes and improvements must be made. These relatively homogeneous groupings of farmers are referred to as recommendation domains.

In selecting the six areas, a multi-disciplinary group reviewed existing secondary data (soil maps, production records, etc.) and then went to the individual municipalities to interview the Municipal Development Officers, Mayors, and extension agents. Where feasible, visits were made to specific barangays to conduct informal interviews with barrio captains, farmer leaders, and groups of farmers. Based on this information the following municipalities and farming systems were selected as potential project sites:

<u>Municipality</u>	<u>Primary Crop(s)</u>	<u>Major Complementary Crop(s)</u>
Bontoc, S. Leyte	Abaca	Coconut
Basey, W. Samar	Coconut	Rootcrops
Jaro, Leyte	Coconut	Tree/Fruit/Rootcrops
Gandara, Samar	Upland Rice	Corn
Matalom, Leyte	Corn	Rootcrops
San Isidro, Leyte	Corn	Tobacco and Mango

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<sup>4</sup>Harrington, L.W. 1980. "Initiating Applied Farming Systems Research in Developing Countries", Paper presented at the AID-USDA Symposium on Farming Systems Research, Washington, D.C. 8-9 December, 1980.

It is anticipated that in some areas more informal interviewing may be required to narrow the list of barrios down even further in order to select the specific research sites. In addition, the possibility of including one site in Eastern Samar will be considered by project staff when site selection is finalized. (Please see Social Soundness Analysis Annexes and Appendix I for a detailed description of each site and selection procedures used by the team).

(b) Descriptive or Diagnostic Stage

As part of their training, the SRMU field staff will conduct short baseline studies to describe the specific farming system in each target area and identify constraints and the potential flexibility in the farming system in terms of timing, slack resources, etc. An effort will also be made to ascertain the goals and motivations of farmers that may affect their efforts to improve the farming system.

(c) Design/Prescriptive Stage

The information collected during the descriptive stage will be brought back to VISCA for analysis. Recommended improvements to be tested will come from the farmers themselves, the multi-disciplinary unit at VISCA, and the MA regional technical staff. There has been substantial research on upland corn production and technology at VISCA, by the MA in the Region, and elsewhere. The possibility of being able to provide profitable and productive modification of a farming system based on corn relatively rapidly are promising. Developing improvements to other cropping systems may prove more time consuming but whatever information is available will be used to design recommended improvements for testing on farmers fields. If particular constraints are identified that require further study before recommendations can be made, VISCA will undertake trials on-campus. Other farming systems problems which are identified as the project proceeds and which require research under more controlled conditions will also be done at VISCA.

(d) Verification Stage

The objective of this stage is to evaluate the improved practices which were recommended in the design stage. Each target area will have a team called Site Research Management Units composed of the farmer-cooperator, a combination of MA technical personnel that may include an extension person, an agronomist, a plant protection

specialist, an animal scientist, an agricultural economist, and a field assistant from a local agricultural high school or college. The SRMUs will conduct two types of trials with farmer-cooperators. The first type of trials to be undertaken are trials that use the farmer's land and labor but with managerial input provided by the researcher. These are referred to as research-managed trials. The second type of trials to be undertaken utilize the farm families' land, labor, capital, and management inputs. Essentially, the improved technology is tested for compatibility with the technical, exogenous, and endogenous factors. These trials are referred to as farmer-managed trials and will probably take place in multi-locational sites which are within the same recommendations domain but some distance away from the initial research site.

(e) Dissemination Stage/Pilot Production Program

It is anticipated that no later than the third year of project implementation improvements to farmers existing farming systems will have been identified and will be ready for dissemination outside of the research areas. At this stage, it may be appropriate to test alternative methods for dissemination of the technologies based on the Ministry of Agriculture's experience with their Extension Delivery System now being established on a pilot basis in Region VIII. Procedures and a detailed plan for dissemination of the technologies will therefore be developed at the appropriate time in the project implementation process.

4. Project Activities Supporting FSR

The above discussion describes the FSR methodology and procedures which will be utilized in the project. In order to facilitate the process and insure that the project objectives are attained, the following additional project components are necessary:

(a) Training

The participant training component of the project is aimed at increasing the capacity of the Ministry of Agriculture to plan, coordinate, and undertake agricultural programs with emphasis on farming systems research and dissemination of the improved technologies. It also aims to improve the research capacity of the leading agricultural college in Layte to support farming systems development in Region VIII. All degree training is time sequenced to minimize staff absenteeism and focussed on fields that will impact directly on

project activities and objectives. Technical degree training will emphasize support for the inter-disciplinary team approach being institutionalized at VISCA and Extension/Outreach/Research activities within the MA Regional office. The technical assistance being provided for in the project will provide guidance in these areas until the participants return from training and are fully employed in the project.

The project therefore plans to support ten local Ph.D. training programs which include one year of courses abroad. It is expected that most of the Ph.D. participants will be from VISCA. In addition, sixteen local M.S. degree participants will be funded. Many of these M.S. students will be from the Ministry of Agriculture. Short-term faculty fellowships and non-degree training will be an important element of the training program. This will consist of third country study tours at courses sponsored by the International Agricultural Research Centers, USDA, and short courses sponsored by U.S. Universities. These courses would include practical aspects of farming systems research, research planning and administration, etc. An illustrative breakdown of training by type and institution can be found in Annex H.

In-service training will also be supported by the project. All members of the SRMUs and selected Region VIII MA and VISCA staff will attend a two to three month training at VISCA. The training will include FSR methodology, practical experience and visits to farming systems projects underway in the Philippines. Trainees will design and conduct baseline studies in the target areas and return to the training sites to analyze the results. One of the outputs of this training will be the preparation of research proposals for each project area. Workshops and seminars will be planned and carried out during the life of the project. At least one workshop will be held yearly to report the findings, problems, and progress of the research being undertaken at each project site.

(b) Technical Assistance

Technical assistance will be provided under a Title XII arrangements with a U.S. Land Grant University. One long-term consultant (48 mm) in the area of Agricultural Economics/Farm Management is required to assist VISCA and the MA/Region VIII to initiate the project. In addition, 48 mm of short-term consultancies is provided for in the project. These will be used as the need arises and can come from the following disciplines:

marketing, extension, agricultural planning, agronomy, or agricultural finance. An illustrative list of TA can be found in Annex I.

(c) Special Studies

In order to support project objectives several types of special studies have been included in the project which may fall beyond the purview of MA and VISCA personnel who are actually conducting the FSR:

(1) VISCA Special Studies

In depth socio-economic studies of each target area will be conducted by VISCA. The main purpose of these studies will be to gather baseline data so that impact on beneficiaries can be measured at a later date. Other special studies such as time allocation studies, the role of women in farm-level decision making, factors influencing farmers to adopt new technology may also be conducted. Particular attention will be paid to market analysis of crops where marketable surplus is projected to expand as a result of project activities.

(2) Study of Infrastructure/Agricultural Support Services

After the mid-project evaluation, a specially designated task force will be appointed to determine future project needs such as roads, markets, price supports, credit, cooperatives, electrification, etc. Based on the information gained from this study and from the mid-project review a PID may be prepared for a follow-on project in late 1983.

(3) Design of Follow-On Project

Funds have been provided for in this project to do the analytical design work for a follow-on project. The purpose of this second phase project will be to support the spread of the technology found promising in this project throughout the entire region. The follow-on activity would focus on the development of supporting systems and could be financed by the GOP with assistance from another donor. These supporting systems could include, but not be limited to cooperatives, agricultural credit, extension services, processing, storage and marketing.

(5) Summary

The GOP has the ability to utilize and maintain the FSR system proposed and in fact, representatives from the MA at the national and regional level and VISCA staff participated in a workshop to design the major components of the project. The reorganization of the MA which integrates its line bureaus as described in the administrative feasibility section is also very supportive of the farming systems research approach proposed under the project.

The starting point for recommending any change in the present farming system will be the agricultural practices currently being used by the farmer-cooperators. Activities will be directed toward assisting the small, rainfed farmers in making low cost improvements to their present agricultural practices while encouraging development and usage of optimal farming systems. This will focus on testing and adaptation of selected, existing technology for both crop and livestock production to fit differing conditions and not on the development of wholly new technology.

In conclusion, the design team feels that the strategy proposed under this project is both technically sound and feasible.

B. ECONOMIC FEASIBILITY

1. Returns to Research

The major thrust of this project is to help the GOP establish the capacity to develop and test the dissemination of appropriate rainfed farming systems in the Eastern Visayan Region of the country. In the long term, it should help to improve the welfare of small-scale rainfed farmers in the Region. Given that the activities to be undertaken in the project are not directly revenue producing the standard benefit - cost analysis is not appropriate in this case.

There has been a significant amount of research undertaken showing the economic returns resulting from investments in research. One of the earliest attempts to measure the social and economic benefits resulting from investments in agricultural research was carried out by Zvi Griliches who showed a 35-45 per cent return to investments in hybrid corn research in the United States<sup>1</sup>. Table 1 shows summaries of studies as

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<sup>1</sup>Griliches, Zvi, "Hybrid Corn: An Exploration in the Economics of Technological Change", *Econometrica* 25: 501-22, October 1957.

Table 1 - Summary of Direct Cost-Benefit Type Studies of Agricultural Research Productivity

Study	Country	Commodity	Time Period	Annual Internal Rate of Return (%)
Grillohee (1968)	U.S.A.	Hybrid corn	1940-55	35-40
Grillohee (1968)	U.S.A.	Hybrid sorghum	1940-57	20
Peteroon (1966)	U.S.A.	Poultry	1915-60	21-25
Evenson (1969)	S. Africa	Sugarcane	1945-62	40
Ardito Barlotta (1970)	Mexico	Wheat	1943-63	90
Ardito Barlotta (1970)	Mexico	Maize	1943-63	35
Ayer (1970)	Brazil	Cotton	1924-67	77+
Schmitz & Seckler (1970)	U.S.A.	Tomato harvesters With no compensation to displaced workers	1958-69	37-46
		Assuming compensa- tion of displaced workers for 50% of earnings loss		16-28
Hines (1972)	Puru	Maize	1954-67	35-40 <sup>a</sup> 50-55 <sup>b</sup>
Hayami & Akino (1975) <sup>c</sup>	Japan	Rice	1915-50	25-27
Hayami & Akino (1975) <sup>c</sup>	Japan	Rice	1930-61	73-75
Hurtford, Ardila, Hocha, & Trujillo (1975) <sup>c</sup>	Colombia	Rice	1957-72	60-82
	Colombia	Soybeans	1960-71	79-96
	Colombia	Wheat	1953-73	11-12
	Colombia	Cotton	1953-72	None
Peteroon & Fitzharris (1975) <sup>c</sup>	U.S.A.	Aggregate	1937-42 1947-52 1957-62 1967-72	50 51 49 34

<sup>a</sup> Returns to maize research only.

<sup>b</sup> Returns to maize research plus cultivation "package."

<sup>c</sup> From papers presented at Conference on Resource Allocation and Productivity in National and International Agricultural Research, Agricultural Development Council, Research and Training Network Program, Airlie House, Virginia, January 26-29, 1975.

presented by Arndt and Ruttan<sup>2</sup> indicating an extraordinarily high return for investments in agricultural research. Since all of these studies have been conducted after the research was completed or ex post, it is not possible through conventional economic analysis to arrive at a social rate of return for the Eastern Visayas Farming Systems Project. It is reasonable to ask what alternative strategies could be employed to attain the projects objectives.

## 2. Alternative Solutions

Several alternatives were considered by the design team and were subsequently rejected because they were either too expensive or ineffective:

- (a) One possible alternative would be to have the University of the Philippines at Los Baños, the leading agricultural college in the Philippines, do the location specific research called for in this project. If foreign TA were not used, this alternative would most likely be less expensive than that being proposed in this project. However, UPLB is not a regional institution and has no mandate to support the GOP's emphasis on regionalization and decentralization of government activities other than those which apply to them. For these reasons, the alternative was rejected.
- (b) A second alternative would be to use UP Tacloban as the leading implementing entity rather than VISCA, both of which are physically located in Region VIII. It was decided to build upon the existing capacity at VISCA rather than pursue a more long term program involving the development of such a research capacity at UP Tacloban. VISCA has been designated as the regional agricultural college for the Visayas as well as the regional research center supported by PCARR. Moreover VISCA, through its facilities and core staff has the beginnings of a critical mass required to do such research and focus on such problems. Its physical capacity is now pretty well in place as well as having the ability to recruit and hold a young professional staff. The net result is that it would be less expensive to concentrate project support at VISCA rather than starting from a much lower base at UP Tacloban. VISCA's philosophy of assisting the small Visayas farmers through a pragmatic/basic needs approach and the fact that the Philippine Root Crop Research and Training Center is housed on that campus, makes VISCA a better choice.

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<sup>2</sup>Arndt, T.M. and Ruttan, Resource Allocation and Productivity in National and International Research, University of Minnesota Press, 1977.

- (c) The final alternative to this project's approach would be to have the GOP engage IRRI or a similar institution in a contractual arrangement to provide the adaptive research services called for under this proposal. The major drawback on this approach is that it would be more expensive and most likely would not be consistent with IRRI's mandate as an international research center. Additionally, such an arrangement would not focus on the development of a GOP capacity nor promote the desired decentralization. For these reasons, it, too, is rejected.

### 3. Areas of Cost Effectiveness

Since it is not possible to measure the economic benefits before the project is undertaken and the alternative strategies to achieve the project's objectives are not feasible, the design team has attempted to design the project in ways which would minimize cost. The following are factors the design team considered in attempting to design the project in the least cost manner.

- (a) In choosing the FSR methodology as the project strategy the team felt that while the "top down" approach to developing improved technologies is relevant to a portion of the farmer-population and complements FSR, it, by itself, is not a cost-effective way of addressing the problems of small farmers in more disadvantaged and remote agricultural areas. For a variety of reasons, the benefits of such approaches simply have not reached the small farmers in these areas. In terms of "technology adopted per monetary unit spent" the strategy proposed in this project may therefore be more cost-effective in reaching the target beneficiaries than the traditional approach to technology development.
- (b) The FSR procedures which have been selected for implementation in the Eastern Visayas have been chosen with the idea of reducing costs as much as possible. Efforts have been made to utilize procedures that are practical and inexpensive. It is not anticipated, for example, that the initial baseline studies will require complex procedures and highly qualified personnel to collect and analyze the data. Sophisticated computer modelling techniques are not required. It is hoped that by keeping the procedures as straightforward and as simple as possible that the time and resources required for moving through the various stages of the program will be minimized and costs will be reduced. Moreover, by grouping the farmer-households into homogeneous recommendation domains the results of the research should be more widely applicable thereby increasing the effectiveness and reducing the costs of improved technology adopted per monetary unit spent. Finally, it is not anticipated that optimal prac-

tices or farming systems will be developed for each recommendation domain. Given the complex nature of the "total environment" in which the farmer-household operates to develop optimal solutions for each target area would increase costs substantially. The emphasis here is to develop farming systems which are better but not necessarily the best for each recommendation domain.

### C. SOCIAL SOUNDNESS ANALYSIS

For the purposes of social soundness analysis there are six different environments in which the linkage between the proposed project and the participants and beneficiaries need to be examined. The six environments are the identified project sites representing different primary crops and farming systems in broadly defined agro-climatic zones.

In each of the six environments, it is proposed to place a Site Research Management Unit (SRMU) drawn from the Regional Ministry of Agriculture personnel to work directly with farmer-cooperators in testing modified farming systems, to monitor the consequences of adoption, and, if productive and profitable, promulgate similar modifications by other farmers. There should be no problems with the interaction of these teams with the small farmer cooperators. The present standing of the Ministry of Agriculture field personnel in the eyes of small farmers is not very high in Region VIII and particularly in the more remote areas, not because of any antagonism, but merely because the MA is now so understaffed in relation to the small farmer population few small farmers have much contact with MA personnel. Furthermore, the MA personnel contacts with small farmers in the field have by necessity been relatively routine and program specific (e.g. signing up Masaganang Maisan participants). Certainly there have been few, if any, concentrated attempts to look at small farmers' operations in the detailed fashion as proposed under this project, suggest modifications in farming systems based on the advice of a team of agriculturalists, researchers, and the farmers themselves, and try them out on some part of the farm holding with the expectation that this is likely to increase production, income or other benefits derived from the enterprise. It is unlikely that there would be any resistance to such a proposal by the small farmers even if there were some initial skepticism that such an effort would be made on their behalf. The support role of VISCA researchers and their interaction with the SRMUs could only enhance the small farmer willingness to participate since the standing of the institution is generally high throughout the region.

The only likely concern that small farmer participants may have in trying out a modified farming system on part of their land are the risks and possible costs in terms of production and income and that the experimental modified farming system might fail and leave them worse off than if they had never adopted the modification in farming system. Given these legitimate concerns, especially of small poor farmers who may have little margin to meet the risk of failure, it will probably be necessary to underwrite farmer cooperators against catastrophic loss, at least on the first occasion that they agree to adopt a modification in farming system, and perhaps on future plantings

until a productive modification is worked out. This underwriting could take two forms (i) an agreement as to what would have constituted an average (minimum) yield if no modifications had been adopted and an undertaking to make up production losses below this yield from project funds, and (ii) an agreement as to what is a minimum expected market farm gate price of product being produced for market and an undertaking to meet that minimum market value to purchase the farmers product from project funds in the event that actual market price falls below these levels.

It is important that this indemnity against risk of production failure and market collapse not be perpetuated beyond the initial adoptions and successful trial of the modified farming system. A major test of the direct benefits of the project and the indirect benefits through spread effects to other small farmers has to be whether the small farmer cooperator adopts on a permanent basis the modified farming systems that were successful on an experimental and underwritten basis, and whether other small farmers adopt the modified system without support to secure them from the risk of failure.

It may be necessary, at least initially, for project funds to be used to finance any additional inputs required of the modified farming system (seed, fertilizer, insecticide, and equipment). The small farmer cooperator should not be expected to meet any special project costs, e.g. any management element of costs or expenses of the SRMUs'.

Where a new crop is to be marketed in an area or marketed surplus is likely to expand considerably, it is important that market demand analysis be initiated early enough so that later adopters of an apparently successful farming system do not lose because of unwarranted expectations that selling prices will be maintained in subsequent seasons. Such market demand analysis should not wait for a second phase project where it is anticipated that adopters of a modified farming system will be widespread. Other experience in the Philippines shows that the spread effects of adoption of an apparently successful farming technology or innovation cannot be held back just because there is uncertain information of the depth of the market for a product.

The history of adoption of new agricultural technologies, at least in the Philippines, suggests that once a technology is demonstrated to be economically feasible and profitable, the spread of the technology to other farmers, even those who operate under different conditions, follows very rapidly. The problem is not in generating spread effects but to control them and restrict them to farmers who operate under similar conditions and to where the depth of market for increased production warrants.

The problems for this project are unlikely to be met in the interface between small farmer cooperators and the project implementors. The problematic areas nearly all relate to the relationship between the cooperator and other people and groups in the socio-economic environment with whom he has to work, transact or deal with in order to secure use of land, rights to work and make a living. Of particular importance will be the terms under which he can use and the security of use he has of the resources, especially land, necessary for him to be a farmer participator in the project and which also determine whether he would be the beneficiary in part or in 'toto' of any benefits (production and income) that might be derived from a successful modified farming system.

The complex and varied socio-economic structures that prevail in each of the areas of Region VIII where it is proposed to introduce farming system modifications make it impossible to meaningfully generalize across project sites about the detailed nature of these structures, the desirable criteria for selection of farmer-cooperators who have the necessary resources, incentives and security of tenure to ensure that they can and would benefit from successful modifications to their farming systems.

Land tenure and land use patterns and arrangements, including those that determine or influence security of tenure, freedom or constraints on land use, payments or share of product for use of land are largely specific to the primary crop or crops that are, or can be, grown on the land. These arrangements are very complex in Region VIII due to: (1) the predominance of coconut planting in the Region where rights and tenure on the coconut tree areas themselves are differentiated from the rights to grow annual crops on the land underneath or adjacent to the coconut trees, (2) the substantial areas of uplands in the Region where there is a high variability of yield and risk which is reflected in the owner/tenant relationships whose objectives are to share risk as well as production, and (3) there are large areas in the region which are hilly and inaccessible and occupied by both kaingin and settled farmers who have, at best, only informal rights to use the land they cultivate. (See Annex C(1) for more detail on land tenure arrangement and its implications for farmer-cooperator selection criteria).

Other social soundness considerations are largely specific to the six project site selections and are to be found in the annexes discussing the methodology for selection and description of the project sites.

In summary, it is believed that the project sites have been preliminarily identified and guidelines for the selection of farmer-cooperators established in such a way as to assure that the project will have socially sound consequences.

D. FINANCIAL PLAN AND ANALYSIS

a. Summary of AID Project Budget

The Aid contribution over the 5 year life of project is \$3.0 million of which \$1.6 million will be in loan and \$1.3 million in grant. Of the total \$969,000 represents allowances for inflation and contingencies.<sup>1/</sup>

Major project components and related budget are as follows:

Project Director's Office Support	130,000
Tech Coor for Res & Dev Off Support	314,000
Tech Training Office Support	217,000
SRMU's Support	83,000
Participant Training Support	330,000
Long Term & Short Term Tech. Assistance	<u>819,000</u>
Total	<u>1,893,000</u>
Inflation at 15% compounded annually	709,000
Contingency 10%	260,000
GRAND TOTAL AID BUDGET	<u><u>2,862,000</u></u>

The dollar budget represents 72% of the PID estimate of \$4,000,000 even though the final design of the project remains essentially unchanged from the initial proposal in the PID. The following factors explain the cost reduction from the early PID budget:

- (1) Construction plans to upgrade the training facilities at VISCA have been reduced from the PID estimate of \$450,000. A 24-unit dormitory will be built on campus. This dorm will be used to house trainees and workshop participants over the life of the project. Plans for staff housing for the TA consultants will be provided as a GOP contribution to the Project instead of funded from dollar sources as originally plan. The net savings on dollar sources is approximately \$260,000.
- (2) At the request of the GOP, all direct technical assistance costs will be funded under the grant portion of the AID contribution. The budget now calls for AID funding of salaries, fringe benefits and overhead and the GOP covering local costs such as housing, utilities, educational allowances, local travel, per diem, TLQA, etc.

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<sup>1/</sup> Financial tables will reflect a project total of \$2.862 million. It was decided at the Mission Review to round this figure to an exact \$3.0 million.

as direct GOP budgetary support. The total amount budgeted for technical assistance remains consistent with the amount budgeted in the PID.

- (3) The training budget has been increased by \$60,000 to \$330,000 to accommodate four additional Ph.D. programs, all covered under the loan. This differs from the PID estimates which budgeted \$90,000 in grant and \$180,000 in loan.
- (4) The mix of project equipment as proposed in the PID has changed substantially. There has been a reduction in the number of vehicles to be purchased as well as reduction in the technical equipment envisioned in the PID. The net result is a budget of \$575,000 which is \$355,000 less than budgeted in the PID.
- (5) Finally, the PP budget includes a more liberal provision for inflation, reflecting more closely the impact inflation is having on prices in the Philippines as well as the U.S. The calculations assume current levels of inflation will continue. As a result of this analysis the inflation escalator was increased from 10% compounded annually in the PID to 15% compounded annually.
- (6) The contingency line item was reduced from 15% in the PID to 10%. This was based on the fact that prices are based on current prices (May 1981) and the likelihood that project implementation will begin late in calendar year 1981. Moreover, it is generally felt that the parties of the project have a firm understanding of the total project cost and the components thereof, therefore, large unforeseen expenditures are not expected. The net result of the changes noted in 1 through 5 above, and the effect on inflationary and contingency allowances of reductions have reduced the net USAID contribution to the project by \$1,138,000.

b. GOP Contribution

The GOP budget for this project totals ₱21.660 million or \$2.813 million or 49.6% of the overall project cost. The host country budget is based on a direct budget contribution and does not include in-kind contribution in the form of personnel salaries, facilities and services. Most of the MA and VISCA staff involved as well as facilities to be used already exist and are in their respective budgets. Additive recurrent costs to the GOP will not be great and will be limited to salary raises and facility maintenance. The effects of this activity will be of an opportunity cost nature, rather than a heavy burden of additive financing.

Both implementing agencies have been and are currently involved in foreign assisted project. They bring with them a good understanding and working knowledge of typical foreign donor requirements and procedures. Moreover, no additional financial management staff will be required by either implementing agency to handle the extra burden of this activity. It is anticipated that standard government accounting and auditing practices will be followed and these control procedures will remain acceptable to AID.

Regardless of the MA and VISCA commitment to this project, both in terms of meeting their research objectives and reorganization plans, the GOP's ability to meet its direct budget contribution should be examined in light of its austerity measures imposed by the Ministry of Budget. This has not been a noticeable problem for the MA. However, in other AID projects where educational institutions have been involved, a reduction in operating budgets has been experienced as a consequence of a foreign assisted project which normally brings a substantial amount of GOP direct counterpart budget.

The MA and Visayas State College of Agriculture have prepared detailed budgets for their regular on-going activities as well as for this project. The latter budgets will be incorporated into the GOP Development Plan and Budget beginning in CY 1983. The Ministry of the Budget and MA/NFAC have agreed in principle to carry costs incurred in CY 1982 and before, if necessary, such as costs related to baseline studies and training not budgeted in the already approved 1982 budget. Peso figures include personnel support costs including maintenance and operating expenses including travel and per diem which are fully endorsed by the implementing agencies involved in the project. There is every reason to believe that project related activities will continue after AID disbursements end. All GOP peso budgets have a 15% inflation compounded and a 10% contingency built in.

Project Director's Office Support	\$ 351,000
Tech Coor for Res & Dev Off Support	540,000
Tech Training Office Support	218,000
SRMU's Support	871,000
Participant Training Support	548,000
Long Term & Short Term Tech Assistance	<u>285,000</u>
Total	\$ 2,813,000

Financial Tables 1 through 3 that follow represent summaries of both foreign exchange and local costs as well as a breakdown of annual costs by project component, project outputs and source of funds. Additional budget tables for the Eastern Visayas Farming Systems Project can be found in Annex F.

TABLE 1

EASTERN VISAYAS FARMING SYSTEMS PROJECT  
SUMMARY SOURCE AND USE OF FUNDS STATEMENT  
(In Thousand U.S. Dollars) 1/  
All Sources

<u>Item</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>3 Year Sub-total</u>	<u>Year 4</u>	<u>Year 5</u>	<u>5 Year Total</u>
<u>Source of Funds</u>							
1. AID Grant	237	252	360	849	292	203	1,344
2. AID Loan	798	373	166	1,337	87	94	1,518
3. Total AID Contribution	1,035	625	526	2,186	379	297	2,862
4. MA	324	268	328	920	428	330	1,678
5. VISCA	200	169	189	558	176	171	905
6. NEDA	137	40	33	210	13	7	230
7. Total GOP Monetary Contribution	661	477	550	1,688	617	508	2,813
8. Total All Sources	1,696	1,102	1,076	3,874	996	805	5,675
<u>Use of Funds by Project Components</u>							
9. Project Director's Office Support	171	76	87	334	100	115	549
10. Tech Coor for Res & Dev Off Support	335	252	111	698	128	148	974
11. Tech Training Office Support	351	29	33	413	37	44	494
12. SRMU's Support	213	143	165	521	264	218	1,003
13. Participant Training Support	235	316	278	829	137	60	1,026
14. Long Term & Short Term Tech. Assistance	391	286	402	1,079	330	220	1,629
15. Total	1,696	1,102	1,076	3,874	996	805	5,675

1/ Exchange Rate is ₱7.7 = \$1.00

Note: For more detailed summary budgets refer to budget tables in the Annex F.

TABLE 2

EASTERN VISAYAS FARMING SYSTEMS PROJECT  
SUMMARY SOURCE AND USE OF FUNDS  
(In Thousand U.S. Dollars)

Project Inputs	AID Grant		AID Loan		Total AID	GOP Budgetary Support			Total Pro- ject Cost	
	LC	FX	LC	FX		VISCA	MA	NEDA		Total
Technical Assistance		807	-	-	807	-	85	-	85	892
Commodities		12	184	379	575	138	217	87	442	1,017
Participant Training		-	-	330	330	93	166	78	337	667
Program Inputs		-	181	-	181	325	540	-	865	1,046
SUB-TOTAL		819	365	709	1,893	556	1,008	165	1,729	3,622
Allowance for inflation		403	145	161	709	267	517	44	828	1,537
Allowance for contingency		122	51	87	260	82	153	21	256	516
<b>PROJECT TOTAL</b>		<u>1,344</u>	<u>561</u>	<u>957</u>	<u>2,862</u>	<u>905</u>	<u>1,678</u>	<u>230</u>	<u>2,813</u>	<u>5,675</u>

TABLE 3

COST OF PROJECT OUTPUTS BY INPUT SOURCE  
EASTERN VISAYAS FARMING SYSTEMS PROJECT (\$000)<sup>1/</sup>

PROJECT OUTPUTS	TOTAL MAGNI- TUDE OF OUTPUT	INPUTS: AID		INPUTS: GOP	TOTAL INPUTS
		LOAN	GRANT		
<b>I. FIELD RESEARCH SITES ESTABLISHED</b>	6				
A. Specific Improvements to Current Farming Systems Identified and Disseminated	100				
B. Site Specific and Multilocational Trials Completed	1000	83	82	488	653
C. Farmers Trained and Participating in Research	360		41	11	52
D. MA Field Staff Trained and Working in Research Sites	30		41	49	90
E. Physical Facilities Completed	6 field offices			39	39
<b>II. IMPROVED CAPACITY OF VISCA TO SUPPORT FARMING SYSTEMS DEVELOPMENT IN REGION VIII</b>					
A. On-Campus Trials Completed in Support of Research Sites	25				
B. Farming Systems Team Established	1 team	314	246	352	912
C. VISCA Conducting Training in Farming Systems Research	5 trainings	33	41	94	168
D. VISCA Staff Trained	5 Ph.Ds 3 Masters Level	165	41	173	379
E. Physical Facilities Completed	1 Dorm 1 Duplex	184		52	236
<b>III. IMPROVED CAPACITY OF REGION VIII MA TO PLAN, COORDINATE, AND UNDERTAKE FARMING SYSTEMS RESEARCH</b>					
A. Project Director's Office Established	1	130	287	220	637
B. MA Regional Staff Trained	5 Ph.Ds 13 Masters Level	165	41	173	379
C. Physical Facilities Completed	1 Duplex 1 Cold Storage Unit			78	78
Sub-Total		1,074	820	1,729	3,623
Cost Escalation <sup>2/</sup>		306	402	828	1,536
10% Contingency		138	122	256	516
<b>GRAND TOTAL</b>		<u>1,518</u>	<u>1,344</u>	<u>2,813</u>	<u>3,675</u>

Note: Items may not add exactly to totals due to rounding

<sup>1/</sup> Converted from peso figures at P7.70/\$1.00

<sup>2/</sup> Accomplished together, not costed separately

<sup>3/</sup> 15% Compounded annually

#### E. ENVIRONMENTAL CONCERNS

The Initial Environment Examination (IEE) submitted to AID/W, as part of the PID, recommended a negative determination which was accepted by AID/W provided that the Project Paper design team includes someone to address questions of herbicides and pesticides use. These questions were thoroughly looked into and reviewed during project preparation, by a Research Biologist currently working in the Philippines under PASA ID/TAB-473-1-67. The biologist noted that the purpose of the project is to adapt low-cost, rainfed technologies to the resource conditions found in Region VIII. The use of expensive agricultural chemicals will therefore be minimal. Moreover, project related farming system research will be conducted directly under the supervision of Ministry of Agriculture technicians assigned to site research locations with overall research leadership provided by VISCA staff, all of whom are familiar with the importance of proper handling of such chemicals. One aspect of the research agenda could be to not only determine the effects of such chemicals on yields and incomes but also to identify water contamination problems and help determine how to eliminate or reduce them. Thus, the impact of the research activity is positive, through reducing current or preventing future contaminating agricultural practices. The Project Paper proposes no significant design changes from the PID; it is the Mission's judgment that no further environment analysis is necessary. The IEE is attached to this paper as Annex K.

#### IV. IMPLEMENTATION PLANNING

##### A. ADMINISTRATIVE ARRANGEMENTS/ANALYSIS

###### 1. Background

The GOP has expressed considerable interest in this project and has assigned some of its finest talent to participate in project design, planning and implementation. The Ministry of Agriculture through its Region VIII Office has been designated as the lead agency responsible for overall project implementation. It has a reputation for strong management and innovative implementation. The Visayas State College of Agriculture (VISCA) is the leading agricultural college in the Visayas with capable leadership and a well qualified faculty. Both implementation entities have the administrative and technical capacity to implement and utilize the project inputs effectively to achieve established purposes. As stated above, MA Region VIII will be the primary implementing agent and VISCA the primary source of research leadership and training. Both will be beneficiaries of analytical and technical capabilities developed as a result of this project. The MA Region VIII Office will request its budget from the MA while VISCA will request and justify its own budgetary requirements for the project through its normal budget process.

At the national level, the Ministry of Agriculture (MA) will provide two representatives to be members of the Regional Project Management Committee (RPMC). The MA will also provide administrative assistance and policy guidance to the RPMC, if required, to ensure smooth project implementation.

The proposed project activities and its methodology are not new to the Philippines. Similar activities are being carried out in various parts of the country by the GOP as well as other donors. This will be the first major farming systems project undertaken in Region VIII by the GOP or any other donor.

###### 2. Ministry of Agriculture Region VIII Office

The MA has a large staff in Region VIII, its organization chart can be found in Annex E. As of December 31, 1980, it had 646 authorized personnel positions for the provinces of Leyte, Southern Leyte and Western Samar with 520 of those positions encumbered. Bureau field staff (BAEx, BPI, etc. technicians) are engaged primarily in their respective disciplines. Staffing appears generous, however commodity orientation can be described as fragmenting farm level effort. Rice technicians under M-99 advise only rice farmers and corn technicians under Masaganang Maisan only corn farmers, etc. BAI's field staff work on disease control, quarantine, regulatory functions and a more limited program of breeding, stock improvement. Extension

effort in livestock is limited and the link between livestock and crop services is weak at best. It should be understood that the MA's new reorganization pulls together all Bureau personnel under the leadership of the MA Regional Director. Under this project, (which fully supports the MA's reorganization) in contrast to the single crop focus existing in most agricultural production programs, new packages of technology (farming systems) for extension will be developed and verified through adaptive research trials conducted in the six (6) different municipalities of the Region by project Site Research Management Unit's (SRMU's). The SRMU's are composed of provincial MA Technical specialists, formerly from BPI, BAEx, etc. who under the proposed MA Regional Reorganization become employees of the MA rather than known as Bureau employees. Examples of similar activities (with different approaches) being carried out in the Philippines are the multiple cropping trials managed under the UPLB Multiple Cropping Program, KABSAKA, and the Integrated Agricultural Production and Marketing Project at CLSU. This project will take into consideration relevant findings from other project activities with emphasis on Region VIII and incorporate the same into its planning. Joint conferences of these activities are supported by the MA and are expected to continue through the life of this activity.

Overall project management and field work operations will be the responsibility of the Project Director who will be under the direct supervision of the MA Regional Director. A project organization chart can be found in Annex E along with functional-descriptions for key project personnel and committees.

### 3. VISCA

The Visayas State College of Agriculture (VISCA) started as a provincial agricultural school on June 6, 1924 with 3 staff and 46 students. In 1939 it was called the Baybay National Agricultural School (BNAS). Teacher-education courses leading to a bachelor's degree in agricultural education and agricultural homemaking were introduced in 1952. The name of the institution was changed to Visayas Agricultural College (VAC) in 1960. On May 24, 1974, the college became the Visayas State College of Agriculture with the current president as its first president.

Research is one of VISCA's three major functions. VISCA's research program is directed at improving the quality of life of small Visayas farmers by increasing their income. The research program at VISCA is commodity-oriented following the national priorities set by PCARR with regional

needs considered.

VISCA has been strengthened by virtue of its becoming the National Research Center for Root Crops and a Regional Research Center for Coconut. It is one of four national multi-commodity research centers in the country chosen by PCARR in 1978.

As a consequence of this project VISCA will strengthen its on-going, inter-disciplinary approach in conducting multi-commodity research as well as strengthening their outreach activities by providing technical support to the project SRMU's. VISCA will make available to the project, members of its inter-disciplinary team on a full or part time basis. Composition of the inter-disciplinary team will be as noted below:

<u>Discipline</u>	<u>Amount of Time</u>
1. Ag Economist	Full Time
2. Agronomist/Soil Scientist	Full Time
3. Animal Scientist	Full Time
4. Plant Protection Scientist	1/4 Time
5. Horticulturist	1/4 Time
6. Ag Engineer	1/4 Time
7. Rural Socialist	1/4 Time

Project financed, on-campus research in farming systems will be structured in such a way as to contribute directly to supporting the SRMU's. The research conducted by VISCA will be systematic following to the extent possible, the procedures laid out as the research methodology for the SRMU's farmers fields in order to approximate farmers' conditions and understanding the constraints farmers face. Moreover, the research activities undertaken by VISCA should be directed at the identified agro-environments so as to allow the Ministry of Agriculture to transfer research technology from one commodity-based system (coconut, corn or rice) to similar agro-environments and save considerable time and research efforts.

VISCA will make available to the project its Regional Training Center for Rural Development (RTC-RD) for the purpose of conducting project related training. Moreover, VISCA will provide a project training coordinator, half time, to coordinate, schedule and conduct needed training.

It is believed that the proposed compensation (salary supplemented with honoraria for regular government employees), project support and research environment are such that project individuals will be persuaded to accept either a multi-year contract or leave of absence from his

or her current employer to be with the project during its life and then beyond.

4. Role of USAID/Philippines

- (a) The USAID Office of Rural and Agricultural Development will provide a part-time project officer to perform the managerial function of planning, organizing, communicating and coordinating as required by AID.
- (b) The nature and extent of managerial involvement by the project officer and his responsibilities will vary according to the size, complexity and needs of the project. His function and responsibilities may change as the project moves from conceptualization to implementation through completion. The paramount responsibility of the project manager is that of coordinating and integrating organizational efforts directed toward the successful development and implementation of the project. This includes insuring that the project is carried out in accordance with AID policies, regulations and procedures and that irregularities are promptly reported to the appropriate higher authority. It is important to note that unlike projects whose technical assistance is directly contracted with AID (this project will follow the host country contracting mode) the project officer will have no line authority over entities and individuals through whose efforts the project goals are achieved.
- (c) The project officer is the primary USAID liaison on all matters related to his project, including working relationship with AID/W, officials of the cooperating country, contractor and other entities.
- (d) In carrying out these and other responsibilities, the project officer may seek the advice and participation of AID technical experts/specialists to the extent necessary.

B. ROLE OF THE TITLE XII LAND GRANT UNIVERSITY

The GOP, through the Ministry of Agriculture and in particular VISCA, has made a strong case for the participation of a U.S. Land Grant University through Title XII. AID's financial assistance includes technical assistance which can be implemented by a team of professional provided by a U.S. University selected under normal AID competitive bidding/procedures. The U.S. Title XII University team will work for and with the GOP implementing agencies under a host country contract.

It has always been envisaged that this project would be designed in final form by the MA and VISCA with assistance of USAID because of insufficient time for a Title XII selection procedures and the broad experience of the GOP with ongoing, related activities elsewhere in the Philippines. To implement the project, it was agreed that a short list of eligible universities would be drawn up by BIFAD with suggestions from the GOP and USAID/Philippines. Requests for proposals will be prepared and issued as soon as possible after execution of the Project Agreement, hopefully to permit arrival of the long-term consultant in mid 1982.

In addition to identifying and providing TA the contracting university will administer the training program which includes some long term academic (Ph.D. course work in the U.S. only) training and some short term observational training in the U.S. The contracting university in consultation with the GOP and USAID will have the responsibility of selection, placement, reception and orientation, providing allowances, advances, travel from points of training in the U.S. to other points in the U.S.; per diem payments and maintenance, evaluation and other such services in accordance with AID Handbook 10. The University shall assume functional responsibilities for the participant normally performed by SER/IT and USDA for non-contract agricultural participant training.

#### C. CONSTRUCTION PROVISIONS

1. Housing - VISCA, and the MA Region VIII office with GOP budgetary support will contract for the construction of two units of housing for the one long term U.S. consultant and short term consultants called for in this project. In the event project funded housing is not available on a timely basis VISCA and/or the Regional MA Office will provide on a priority basis necessary housing.

Furnishing will be provided by GOP-MA, with the exception of appliances which will be financed from the AID loan.

2. Dormitory facilities - A 24-unit dormitory will be constructed and furnished on the VISCA campus and financed under the loan component of the project. This facility will be financed on a Fixed Amount Reimbursement basis. This dorm will be used to house trainees and seminar/workshop participants over the life of the project.

#### D. PROCUREMENT PLAN

Project equipment and scientific instruments in the approximate amount of \$179,000 (loan) will be procured from U.S. source and origin. Additionally, \$200,000 in loan funds is set aside for

the procurement of books, periodicals, and library equipment for VISCA. A Commodity Procurement Plan along with a full list of equipment can be found in Annex G.

The Ministry of Agriculture will act as the coordinating agency in establishing procurement arrangements, obtaining warehouse space, if required, and trans-shipment of equipment and materials to Region VIII. MA will also make arrangements for SRMU personnel access to the NFAC motorcycle fund, on a priority basis, to facilitate field travel.

#### **E. MONITORING ACTIVITIES**

There will be a careful monitoring of project implementation which will begin with the formulation of annual work plans. Monitoring will be the continuous gathering of information on project inputs and objectives, and on conditions and complementary activities that are critical to the success of the project. Moreover, monitoring will utilize baseline study information collected during the preparation/training phase. This monitoring process will continue throughout the project's life-time. It will compare reported progress against planned inputs, outputs and objectives; it will alert project management and policy-makers to implementation problems requiring corrective action; and it may provide the necessary information for the preparation of evaluations such as those noted in 2a below.

The MA/NFAC Management Information System Office and staff, because of its experience in monitoring MA programs, will take the lead in establishing and institutionalizing a monitoring capability within the Regional MA Office. Once established, this monitoring activity will be the responsibility of the Office of the Project Director. In addition, the TA Contractor (long-term consultant or campus coordinator) will prepare an annual report with exhibits as appropriate including reports prepared by short-term consultants. The GOP may wish to prepare contractor performance evaluation reports as desired.

#### **F. EVALUATION SCHEDULE**

1. **Process/Administrative Evaluation** - This evaluation will be conducted after 1-1/4 years of implementation. It will be conducted in-house (GOP, USAID and TA contractor). It will be a review of project implementation agencies' relationships, their organizations, management and operations in an effort to assess (i) adequate agency and bureau staffing; (ii) policy and decision making process; (iii) planning, programming and budget processes; (iv) implementation process; (v) monitoring and evaluation process.
2. **Mid-Project Evaluation**- At the end of 2 1/4 years of project imple-

mentation and before the multi-location testing begins, an external evaluation (by 1 or 2 evaluators - 6 weeks total) will be conducted. The evaluation will focus on problem areas and make recommendations for possible re-design. In addition, the evaluation will also look at the rate of implementation, research methodology being used and contractor performance. AID encourages the participation of GOP evaluators so as to make them joint evaluations. Necessary GOP funding will be made available for the GOP evaluators. This applies to the end of project evaluation as well.

3. Study of Infrastructure/Support Services - Following the mid-project evaluation, a review of whether a second phase activity or project appears justified will be conducted. This follow-on activity is envisioned as a commodity/production activity project that will focus on the development of supporting systems and might be financed by the GOP with the assistance from a foreign donor other than AID. The supporting systems would include, but not be limited to, cooperatives, agricultural credit, extension services, processing, storage and marketing. Five (5) person months are being budgeted for this purpose.
4. End of Project Evaluation - A Final external evaluation (6 man weeks) will be undertaken at the end of year 5. The evaluation will provide a thorough assessment of the project and its results. The information and project findings may be serve as a basis for AID involved in follow-on activities in the Regions as may be directed by the Mission's CDSS.
5. Summary Evaluation Schedule

	<u>Year</u>
1. Project Status	0
2. Process/Administrative Evaluation	1½
3. Mid-Project Evaluation	2½
4. Study of Infrastructure/Agricultural Support Services	3
5. End of Project Evaluation	5

G. CONDITIONS, COVENANTS, AND NEGOTIATING STATUS

1. Condition Precedent: No additional CPs are required prior to initial disbursement. However, the following CPs to subsequent disbursement are required:

I. Prior to disbursements for financing technical assistance:

- (a) an executed technical assistance contract with an institution acceptable to AID;

- (b) Construction of suitable housing for TA consultants subject to AID acceptance;
  - (c) The GOP will furnish appropriate construction plans and specifications for the TA contractor housing on the VISCA campus and in Tacloban.
2. Covenants : The Loan/Grant Agreement will contain the following covenants.

- (a) an evaluation program will be established as an integral part of the project.

3. Negotiating Status

This project has received a high degree of participation and cooperation from the GOP implementing agencies, NFAC, senior Ministry of Agriculture officials and to a lesser degree NEDA. The project is based on a request from the Minister of Agriculture sometime ago. All major elements of this project have been thoroughly discussed with the above-mentioned agencies and represents agreement with the same. Since the above conditions and covenants are not complex, it is believed that negotiation with the GOP will not encounter difficulty.

4. Waivers

No source and origin waivers are expected at this time. However, it may be that some commodities, books and materials, or technical services are attainable only from code 935 countries in which case specific waivers will be prepared for consideration by the USAID Director. This will be done on a case-by-case basis.

H. PROPOSED IMPLEMENTATION SCHEDULE/ACTIVITIES

<u>Date</u>	<u>Major Activities</u>	<u>Responsibility</u>
July 1981	Mission/GOP approve PP	GOP/USAID
July 1981	Request for short list of U.S. universities interested in project	USAID/ORAD
September 1981	Loan/Grant Agreement signed	NEDA/USAID
September 1981	Short list provided and reviewed by GOP/USAID	BIFAD/AID/W GOP/USAID

<u>Date</u>	<u>Major Activities</u>	<u>Responsibility</u>
September 1981	Draft PIO/C for books and library materials completed along with a book list prepared by GOP	USAID VISCA/MA
September 1981	Draft IFB for research equipment completed and approved	MA/USAID
October 1981	Request for Proposals (RFP) issued by GOP for host country contract contingent on the availability of funds	MA USAID (Review)
October 1981	Year 1 - Ph.D., MS, non-degree, etc. participants screened and identified for local enrollment in April and U.S. training as appropriate	GOP/USAID
November 1981	University proposals reviewed (60 days after RFP)	GOP/MA VISCA/USAID
November 1981	IFB for research equipment advertised	USAID
November 1981	PIO/C for books and library materials approved and issued	USAID
December 1981	Project staff identified (contracts where necessary, finalized)	MA/VISCA
December 1981	Construction of Duplex at VISCA begins	VISCA
January 1982	University contractor selected, contract negotiated and signed	GOP USAID/CSD
January 1982	3-month training for SRMU and related staffs begins at VISCA	MA VISCA
January 1982	Procurement contracts for equipment awarded	MA USAID
January 1982	Books and library materials for VISCA begin arriving	
February 1982	LT consultant arrives with campus coordinator (TDY) to set up arrangements	TA Contractor VISCA/MA

<u>Date</u>	<u>Major Activities</u>	<u>Responsibility</u>
February 1982	TA housing (duplex) completed	
March 1982	Screen and identify participants (Ph.D., MS, non-degree and faculty fellows) for year 2 training	GOP TA Contractor
March 1982	Project vehicle and equipment begin arriving	
March 1982	Year 1 work plans completed and approved	MA/VISCA
April 1982	ST consultant begin arriving as needed	GOP TA
January 1983	Year 2 Work Plans Completed and Approved	MA/VISCA/ TA Contractor
February 1983	Recruitment of short term TA for Year 2 based on work plans/ Need begins	TA Contractor
March 1983	Screen and identify participants for year 3 training (Ph.D., non-degree and Faculty Fellows)	MA/VISCA TA Contractor USAID
January 1984	Year 3 Work Plans Completed and Approved	MA/VISCA TA Contractor
February 1984	Recruitment of short-term TA for Year 3 base on Work Plans/ Need begins	TA Contractor
July 1984	Mid Project Evaluation	USAID/GOP
August 1984	Infrastructure/Agricultural Support Services Study	USAID/GOP
January 1985	Year 4 Work Plans Completed and Approved	GOP TA Contractor
March 1985	Recruitment of short-term TA for Year 4 based on Work Plans/ Need begins	TA Contractor
January 1986	Year 5 Work Plans Completed and Approved	MA/VISCA TA Contractor

<u>Date</u>	<u>Major Activities</u>	<u>Responsibility</u>
February 1986	Recruitment of short-term TA for Year 5 base on work plans/ need begins	TA Contractor
August 1986	Final Project Evaluation	USAID/GOP

A N N E X E S

**ANNEX A**

**PID APPROVAL CABLE**

**UNCLASSIFIED**

UN 320601

ANNEX A  
(page 1 of 4)

**UNCLASSIFIED**  
Classification

**ACTION:**

*AD-10*

**INFO:**

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FM SECSTATE WASHDC

TO AMEMBASSY MANILA 6584 - *6585*

BT

UNCLAS

STATE 305733

AIDAC

E.O. 12065: N/A

AGS:

SUBJECT: EAST VISAYAS FARMING PROJECT (492-0356)

APAC MET ON NOVEMBER 6 AND APPROVED SUBJECT PID. DIRECTOR USAID/MANILA MAY AUTHORIZE PROJECT PROVIDED IT DOES NOT EXCEED FUNDING LEVEL CONTAINED IN PID AND PROVIDED FURTHER THAT MISSION ADVISE AID/W SPECIFICALLY THAT ADEQUATE STAFFING ON GOP SIDE IS ASSURED. ALONG WITH ISSUES IDENTIFIED IN PID, THE FOLLOWING CONCERNS SHOULD BE ADDRESSED IN THE PP:

1. PROJECT STRATEGY AND PHASING.  
(A) USAID IS TO BE CONGRATULATED ON A CONCEPTUALLY ORIGINAL APPROACH TO ASSIST SMALL RAINFED FARMERS. PID ALSO WELL PREPARED, BUT WE WERE NOT CLEAR ABOUT CONTENT AND TIMING OF EACH PROPOSED PHASE. THESE SHOULD BE ADDRESSED IN GREATER DETAIL IN PP AND CLEARLY PRESENTED IN A SCHEDULE OF PLANNED ACTIVITIES.

(B) AS WE UNDERSTAND PROJECT PROPOSAL, IT IS TO BE A PILOT OR DEMONSTRATION PROJECT DESIGNED TO STUDY THE CONSTRAINTS AFFECTING SMALL RAINFED FARMERS, AND TO TEST NEW, APPROPRIATE AND AFFORDABLE TECHNOLOGIES FOR THEM BY MEANS OF INTEGRATED SITE RESEARCH MANAGEMENT UNITS. APAC FELT THAT SUCH RESEARCH, AND THE EXTENSION OF ITS FINDINGS AND NEW

TECHNOLOGIES, ARE APPROPRIATE OBJECTIVES FOR THIS PROJECT. THUS WE WOULD HOPE, AT THE END OF THE PROJECT PERIOD, TO HAVE PROVED THE ECONOMIC AND TECHNICAL FEASIBILITY OF AT LEAST SOME NEW TECHNOLOGIES, AND TO UNDERSTAND MORE ABOUT THE NATURE AND RELATIVE IMPORTANCE OF THE REAL CONSTRAINTS AFFECTING THE TARGET GROUP. APAC AGREED, HOWEVER, THAT PROJECT ACTIVITIES DESIGNED TO ADDRESS SUCH CONFTRAINS, SUCH AS (POSSIBLY) THE ORGANIZATION OF COOPERATIVES, THE

**UNCLASSIFIED**  
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	AG/EA		
	TRV		

PROVISION OF CREDIT, PROCESSING AND STORAGE FACILITIES, MARKETING ASSISTANCE, ETC. SHOULD BE RELEGATED TO A SEPARATE AND/OR FUTURE PROJECT.

(C) IT SHOULD BE MADE CLEAR IN THE PROJECT STRATEGY EXACTLY WHO WILL BE IN CHARGE OF OVERSEEING AND COORDINATING THE ACTIVITIES OF THE SIXTY RESEARCH SITES IN EACH OF THE AGROCLIMATIC ZONES. APAC NOTED THAT RATIO OF ONE MANAGEMENT UNIT PER SIXTY FARMER MAY BE HIGH. (POUCHING LAC PROJECT PAPER THAT IS PERTINENT ON THIS ISSUE). APAC ALSO CONCERNED THAT LOCAL MANAGEMENT BE GIVEN SUFFICIENT AUTHORITY TO COMMUNICATE DIRECTLY WITH RELEVANT MINISTRIES IN MANILA AND BE CAPABLE OF REQUESTING AND OBTAINING TIMELY RELEASE OF FUNDS FOR PROJECT ACTIVITIES.

## 2. INSTITUTIONAL CONSIDERATIONS.

(A) THE ATTEMPT TO INVOLVE VARIOUS INSTITUTIONS IN THE PROJECT WAS WELL RECEIVED; HOWEVER, APAC WAS CONCERNED THAT RESPONSIBILITIES BE CLEARLY DEFINED AND COORDINATION LINES BE CLEARLY DRAWN. RELATION TO UPLB, IIRI, AND IBRD PROJECTS SHOULD ALSO RECEIVE CAREFUL ATTENTION IN THE PP.

(B) ISSUE NUMBER FOUR IN THE PID CONCERNING ENHANCEMENT OF MAF'S CAPABILITY TO MEET ITS RESPONSIBILITIES UNDER THIS PROJECT SHOULD BE RESOLVED ASAP, AND DEFINITELY BEFORE PP IS FINALIZED. APAC REQUESTS MISSION ADVISE AID/W (AS EARLY AS POSSIBLE IN DESIGN OF PROJECT) THAT KEY ASSUMPTION NUMBER 2 ON PAGE 4 OF PID, RELATING TO STAFFING FOR PROJECT, HAS BEEN DISCUSSED WITH ENTITIES CONCERNED AND SATISFACTORILY ADDRESSED. AGREE THAT IF INCENTIVE ALLOWANCES ARE TO BE USED, THESE SHOULD BE ANALYZED AND FULLY JUSTIFIED IN TERMS OF THEIR LONG-TERM IMPLICATIONS.

(C) PP SHOULD ALSO INDICATE RELATIONSHIP BETWEEN THIS PROJECT AND PROPOSED REGIONAL POVERTY ANALYSIS PROJECT.

## 3. BENEFICIARIES.

(A) THE PID ENVISIONS A TARGET GROUP OF SOME 360 SMALL FARMERS. THE APAC INQUIRED ABOUT THE MINIMUM INVESTMENT THAT WOULD BE REQUIRED FROM FARMERS PARTICIPATING IN THIS

PROJECT. IF THE INVESTMENT IS SUBSTANTIAL IN TERMS OF THE AVERAGE FARMER'S RESOURCES, IT IS POSSIBLE THAT THIS WOULD INHIBIT INVOLVEMENT IN THE PROJECT BY MANY OF THE POORER FARMERS. APAC CONCERNED WITH GENERAL COST/PRICE SQUEEZE IN THE PHILIPPINES (I.E., COST OF INPUTS ALLOWED TO RISE WHILE PRICE OF AGRICULTURAL PRODUCE IS NOT). PP SHOULD SPECIFICALLY ADDRESS THE QUESTION OF AFFORDABILITY IN TERMS OF THE RESOURCES AVAILABLE TO THE TARGET GROUP AND ITS IMPLICATIONS FOR REPLICABILITY.

(B) QUESTIONS WERE ALSO RAISED ON THE CHARACTER OF THE TENANCY. AS WE UNDERSTAND IT, THE OWNER TENANT RELATIONSHIP IN THE PROJECT AREA IS VERY TENTATIVE AND PROVISIONAL. WHAT GUARANTEES ARE THERE THAT THE OWNERS THEMSELVES WILL NOT RECLAIM THEIR LAND IF THE PROJECT IS SUCCESSFUL? THE PP SHOULD DEFINE THE OWNER TENANT RELATIONSHIP AND DEMONSTRATE THAT THE FARMER-TENANTS WILL RECEIVE THE BENEFIT OF THE PROJECT.

#### 4. ECONOMIC.

(A) THE APAC FELT THAT OVERALL COST OF THE PROJECT <sup>CRU</sup> SEEMS HIGH. APAC QUESTIONED IF ALL ITEMS BEING PROPOSED FOR FINANCING ARE ABSOLUTELY NECESSARY. WE DO NOT SEE THIS PROJECT AS ONE OF INSTITUTION BUILDING OR IMPROVING THE PHYSICAL PLANT OF THE INSTITUTIONS INVOLVED. TO THE EXTENT THAT EITHER OF THESE ELEMENTS IS NECESSARY, THEY SHOULD BE FULLY JUSTIFIED IN THE PP.

(B) THE LOAN/GRANT SPLIT FOR THIS PROJECT SHOULD BE REVIEWED. DUE TO VERY LIMITED AVAILABILITY OF GRANT FUNDS, THE MISSION SHOULD ACHIEVE AN 80/20 PERCENT SPLIT FOR LOAN/GRANT FUNDING. THE MISSION'S ENTIRE DEVELOPMENT ASSISTANCE PROGRAM WILL BE EXPECTED TO ACHIEVE THAT TARGET EVEN IF INDIVIDUAL PROJECTS DO NOT.

#### 5. POTENTIAL FOR TITLE XII.

THE APAC CONCLUDED THAT DUE TO THE PROGRESS ALREADY MADE IN PROJECT DESIGN AND OTHER TIME CONSTRAINTS INVOLVED, IT MAY NO LONGER BE APPROPRIATE TO CONSIDER USE OF TITLE XII COLLABORATIVE ASSISTANCE MODE FOR THE DESIGN PHASE OF THE PROJECT. HOWEVER, TITLE XII INSTITUTIONS SHOULD BE CONSIDERED FOR PARTICIPATION IN PROJECT IMPLEMENTATION. PLEASE ADDRESS POSSIBLE ROLE FOR TITLE XII IN PP.

#### 6. SECURITY CONDITIONS.

APAC REQUESTS THAT AID/W BE KEPT CLOSELY INFORMED IF SECURITY PROBLEMS IN THE PROJECT AREA WORSEN AT ANY TIME

DURING THE DESIGN STAGE OF THE PROJECT.

#### 7. ENVIRONMENTAL IMPACT.

IF NEGATIVE DETERMINATION IS ACCEPTED PROVIDED THAT THE PP DESIGN TEAM INCLUDES SOMEONE TO ADDRESS QUESTIONS OF HERBICIDE AND PESTICIDE USE. PERSONNEL ARE AVAILABLE FROM THE DS/AGR-FUNDED CONSORTIUM FOR INTERNATIONAL CROP PROTECTION (CICP) FOR UP TO 30 DAYS AT NO COST TO MISSION IF ASSISTANCE IS REQUIRED. APAC RECOMMENDS THIS ISSUE BE EXAMINED CLOSELY SINCE PROJECT IS AIMED AT TARGET GROUP THAT MAY NOT BE FAMILIAR WITH ENVIRONMENTAL IMPLICATIONS OF THE PROPOSED AGRICULTURAL INPUTS.

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Classification

8. FYI, CONCERN HAS BEEN EXPRESSED AT RECENT PROJECT REVIEW MEETINGS ABOUT STAFFING IMPLICATIONS OF CERTAIN PROJECTS. REQUEST THAT PP DISCUSS IN SOME DETAIL THE NATURE AND EXTENT OF MISSION'S PROPOSED INVOLVEMENT IN IMPLEMENTATION AND MONITORING OF THIS PROJECT. MUSKIE

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**ANNEX B**

**LOGICAL FRAMEWORK**

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U S Funding \_\_\_\_\_  
Date Prepared \_\_\_\_\_

Project Title & Number: **EASTERN VISAYAS FARMING SYSTEMS PROJECT - PHASE I**

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																																																		
<p><b>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</b></p> <p>To improve the livelihood of small-scale rainfed farmers in selected agroclimatic zones of Region VIII.</p>	<p><b>Measures of Goal Achievement: (A-2)</b></p> <ol style="list-style-type: none"> <li>Increase in time spent productivity employed on farm.</li> <li>Increase in consumption levels of farm grown produce.</li> <li>Increase in levels of marketable surplus produced on the farm.</li> </ol>	<p><b>(A-3)</b></p> <p>In-depth evaluation to lay foundation for Phase II project.</p>	<p><b>Assumptions for achieving goal targets: (A-4)</b></p> <ol style="list-style-type: none"> <li>Increased production and income derived from improved farming systems will benefit primarily farm households adopting these systems.</li> <li>Follow-on project will be designed and implemented to support spread of improved technology.</li> <li>GOP follows suitable policies relating to markets, investments, production, extension, research, etc., including price, sector allocation, etc.</li> </ol>																																																		
<p><b>Project Purpose: (B-1)</b></p> <p>To establish a network mechanism for adapting rainfed, agricultural technologies to the resource conditions found in Region VIII and to disseminate such technologies as appropriate.</p>	<p><b>Conditions that will indicate purpose has been achieved: End-of-Project status: (B-2)</b></p> <ol style="list-style-type: none"> <li>Improved rainfed farming systems (crop and animal) being tested and selected for Area-wide replication.</li> <li>a) Farming systems team at VISCA providing technical support to research management units functioning in the field and conducting on-campus trials. b) MOA line agencies (DPI, DAL, BALB, WFAC) participating in research units and providing technical/administrative support.</li> <li>Farm households utilizing all or part of newly introduced technologies.</li> </ol>	<p><b>(B-3)</b></p> <ol style="list-style-type: none"> <li>Evaluation</li> <li>Farm Level Surveys</li> </ol>	<p><b>Assumptions for achieving purpose: (B-4)</b></p> <p>The RA Region VIII office, with the assistance of WFAC and VISCA, will coordinate and provide the project with adequate personnel from their respective staffs.</p>																																																		
<p><b>Project Outputs: (C-1)</b></p> <ol style="list-style-type: none"> <li>Field Research Sites Established             <ol style="list-style-type: none"> <li>Specific improvements to Current FS identified and disseminated</li> <li>Site Specific and Multilocational trials completed</li> <li>Farmers Trained and Participating in Research</li> <li>RA Field Staff Trained</li> <li>Physical Facilities Completed</li> </ol> </li> <li>Improved Capacity of VISCA to support Farming systems development in Region VIII             <ol style="list-style-type: none"> <li>On-campus trials completed in support of field research sites</li> <li>Farming Systems Team Established</li> <li>VISCA Conducting training in RA</li> <li>VISCA Staff Trained a) Physical Facilities Completed</li> </ol> </li> <li>Improved Capacity of Region VIII Ministry of Agriculture to plan, coordinate, and undertake Farming Systems Research             <ol style="list-style-type: none"> <li>Project Director's Office Established</li> <li>RA Regional Staff Trained</li> <li>Physical Facilities Completed</li> </ol> </li> </ol>	<p><b>Magnitude of Outputs: (C-2)</b></p> <ol style="list-style-type: none"> <li>6 Field Research Sites Established             <ol style="list-style-type: none"> <li>100 improvements identified and disseminated</li> <li>1000 site specific and multilocational trials completed</li> <li>300 farmers trained and participating in research</li> <li>30 RA field staff trained</li> <li>6 site offices</li> </ol> </li> <li>25 On-campus trials completed             <ol style="list-style-type: none"> <li>1 farming systems team established</li> <li>5 trainings conducted</li> <li>5 Ph.Ds, 3 masters level</li> <li>1 diploma</li> </ol> </li> <li>1 project director's office established             <ol style="list-style-type: none"> <li>5 Ph.D's, 13 masters level</li> <li>1 diploma, 1 cold storage unit</li> </ol> </li> </ol>	<p><b>(C-3)</b></p> <ol style="list-style-type: none"> <li>Project Monitoring</li> </ol>	<p><b>Assumptions for achieving outputs: (C-4)</b></p> <ol style="list-style-type: none"> <li>Appropriate demonstration areas and farmer-cooperators can be found.</li> <li>Trained persons return to sector and function productively.</li> <li>Suitable price/incentive environment exists to induce adoption.</li> <li>Required staffing and budget are supplied by the GOP.</li> </ol>																																																		
<p><b>Project Inputs: (D-1)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>US\$ (US\$)</th> <th>US\$ (US\$)</th> <th>GOP (\$000)</th> </tr> <tr> <th></th> <th>Short Term</th> <th>Long Term</th> <th></th> </tr> </thead> <tbody> <tr> <td>Technical Assistance</td> <td>807</td> <td>-</td> <td>85</td> </tr> <tr> <td>Commodities</td> <td>12</td> <td>563</td> <td>442</td> </tr> <tr> <td>Participant Training</td> <td>-</td> <td>330</td> <td>337</td> </tr> <tr> <td>Project Input Support</td> <td>-</td> <td>181</td> <td>865</td> </tr> <tr> <td><b>Sub-total</b></td> <td><b>819</b></td> <td><b>1,074</b></td> <td><b>1,729</b></td> </tr> <tr> <td>15% Contingency</td> <td>123</td> <td>158</td> <td>256</td> </tr> <tr> <td>10% Inflation</td> <td>802</td> <td>386</td> <td>828</td> </tr> <tr> <td><b>Sub-TOTAL</b></td> <td><b>1,744</b></td> <td><b>1,518</b></td> <td><b>2,813</b></td> </tr> <tr> <td><b>GRAND TOTAL</b></td> <td colspan="2"></td> <td><b>\$5,675</b></td> </tr> </tbody> </table>		US\$ (US\$)	US\$ (US\$)	GOP (\$000)		Short Term	Long Term		Technical Assistance	807	-	85	Commodities	12	563	442	Participant Training	-	330	337	Project Input Support	-	181	865	<b>Sub-total</b>	<b>819</b>	<b>1,074</b>	<b>1,729</b>	15% Contingency	123	158	256	10% Inflation	802	386	828	<b>Sub-TOTAL</b>	<b>1,744</b>	<b>1,518</b>	<b>2,813</b>	<b>GRAND TOTAL</b>			<b>\$5,675</b>	<p><b>Implementation Target (Type and Quantity) (D-2)</b></p> <p>TA: (1) Long Term (2) Short Term (a) Foreign \$mm (a) Foreign \$mm</p> <p><b>Commodities:</b></p> <table border="0"> <tr> <td>(1) TA Support</td> <td>(4) Library Materials</td> </tr> <tr> <td>(2) Field Vehicles (11)</td> <td>(5) Laboratory/Field Equipment</td> </tr> <tr> <td>(3) Motorcycles (12)</td> <td>(6) Construction Cost</td> </tr> </table> <p><b>Participant Training:</b></p> <ol style="list-style-type: none"> <li>30 Non-degree short term programs (10 mo. @)</li> <li>10 Faculty fellow (max. 6 mo. @)</li> <li>16 Local M.B. degree programs</li> <li>10 Local Ph.D with 1 year training abroad</li> </ol> <p><b>Project Input Support:</b></p> <ol style="list-style-type: none"> <li>Seed, Fertilizer, Equipment</li> <li>Salary/Incentive Allowances</li> <li>Training Funds</li> <li>Core Staff and Support</li> </ol>	(1) TA Support	(4) Library Materials	(2) Field Vehicles (11)	(5) Laboratory/Field Equipment	(3) Motorcycles (12)	(6) Construction Cost	<p><b>(D-3)</b></p>	<p><b>Assumptions for providing inputs: (D-4)</b></p> <ol style="list-style-type: none"> <li>Sufficient numbers of quality technical assistance personnel are available, willing, and able to work in isolated field situations.</li> </ol>
	US\$ (US\$)	US\$ (US\$)	GOP (\$000)																																																		
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**ANNEX C**

**SOCIAL SOUNDNESS ANALYSIS**

**C(1)**

**LAND TENURE ARRANGEMENTS AND CRITERIA  
FOR FARMER-COOPERATOR SELECTION**

LAND TENURE ARRANGEMENTS AND  
CRITERIA FOR FARMER-COOPERATOR SELECTION

Three broad features of land use and cropping patterns in Region VIII influence the land tenure arrangements:

- (1) There is a predominance of tree crop planting, particularly coconuts, in the Region. Depending on the estimate one uses, and the time it was made, somewhere between forty and sixty per cent of all cultivated land are planted to coconuts, although these estimates do not usually make allowance for the substantial areas of other complementary crops that are grown under or adjacent to coconut plantations. The relatively limited labor requirements for tree crop production once tree crops are mature and the limited annual returns per hectare neither encourages owner-operatorship on small holdings (because the areas planted provide insufficient employment for a full time occupation and insufficient income (by landowner standards) to provide fully for livelihood nor provides a comparative advantage for the organization of large estates on plantation bases using wage labor forces (except, perhaps for harvesting purposes). The predominate tenure arrangement in coconut and other tree crop areas appears to be owner-operator utilizing local resident labor, followed by share tenants. These laborers usually reside on the coconut lands and often have informal rights to plant crops under the trees mainly for their family subsistence but also for local market purposes. They may be described as tenants-at-will rather than landless laborers as traditionally understood. A typical share tenancy arrangement would provide the tenant with somewhere between one-sixth and one-third of the coconut crop and allow the tenant some rights to produce other crops underneath or adjacent to the coconuts for his own consumption. Processing of coconuts into copra, and sometimes harvesting and hauling as well, are usually paid for on a wage or piece rate basis. In so far as other landless laborers participate in this employment they too may get limited privileges to use coconut lands to plant crops for household consumption purposes.
- (2) There is a predominance of dry uplands in Region VIII vis-a-vis lowland (irrigated) areas, planted to a wide range of upland crops: corn, upland rice, and the tree crops mentioned above. A feature of upland production, especially of annual crops, is the higher variability of yields and risk of crop failures because of the variability of climate and difficulties of water control for such land as compared with irrigated lowlands. The difficulties of access to upland areas and the relatively low productivity encourage the development of tenancy arrangements. The risks of crop failure lead to tenants' preference (as well as landowners) for share tenancy arrangements. Not only does the landowner take a share in the product he also takes a share in the risks. Thus, even in upland rice and corn areas of the region where attempts have been made to implement agrarian reform

programs (OLT and LHO) which both dictate an immediate conversion of share tenancy arrangement to leasehold arrangements with fixed payments (based on one-quarter of estimated value of normal crop yields), share tenancy arrangements still prevail.

- (3) There are large areas of land in the Region that are of hilly, mountainous terrain. Many of these areas are inaccessible and/or uncultivable. Where cultivation is possible and access routes established, cultivation has moved through a process of first harvesting of timbers (with or without formal timber land leases) then subjection to kaingin (slash and burn) clearing of other vegetation and the planting of food, root and banana crops mainly for subsistence consumption of the kaingeros households. In some areas, pasture leases have been extended and livestock ranches established and run on relatively extensive leases.

The kaingin and pasture lands have formed the frontier areas for the more recent expansion of coconut and abaca plantations. The process by which these lands have been opened up has led to a still very loose set of land tenure arrangements and incomplete land titling, concession and use right documentation. Most of the land is not adequately mapped. In many areas entrepreneurs and developers lay claim to timber and other resources without any formal concession at all and farmers use land for long periods of time without any formal rights to do so. There are government regulations that affect the ownership and use rights to these lands, (such as the pasture and timber concession laws and decrees, and the Bureau of Forest Development administered laws and decrees governing land use rights on steeply sloped lands (e.g. PD 705), but these are less than effective in providing either orderly, equitable rights that provide secure use of land or resources, or measures to prevent the degradation of the natural resource base, soil erosion problems, and siltation and run-off problems in the lower areas.

These features of topography, land use, cropping patterns and land tenure arrangements have been taken into account in many ways in the project design:

- (1) In specifying promising agro-climatic zones and corresponding primary crop or crops, it had been decided to concentrate only on the upland or rain fed areas. (c.f. irrigated land areas). From the remaining upland areas many had to be excluded because of their remoteness and inaccessibility. Other timber and pasture land areas were excluded because the large scale ownership basis under which they are controlled and operated is not consistent with a small farmer beneficiary focus.

Most important of all was the decision that the specification of primary crop in coconut areas would be done in terms of

the complementary crops which are grown under the coconuts or adjacent to them and grown by small farmer tenant caretakers and landless labors/tenants-at-will on the coconut lands.

- (ii) In the selection of municipalities for project sites, some possible areas were rejected because it was believed that the prevailing land ownership patterns or histories of land disputes would compromise the assurance that benefits of the project would go to target small farmer beneficiaries.
- (iii) In establishing criteria for the selection of farmer cooperators the prevalency of share tenancy and even hardly formalized tenancy arrangements throughout the upland zones and project sites had to be recognized. It would not be possible and dysfunctional to restrict selection of farmer-cooperators to the small farmers who own and operate their land with their own resources using just family labor. There will have to be tenant farmers among the participators including those who operate on share tenancy arrangements and even landless laborers and tenants-at-will who traditionally have no formal rights to the land they use but rely only the goodwill of the landowners and customary practices.

It will be necessary to establish some minimal security of tenure and assurances that benefits will go to the small farmer for consideration as a farmer cooperator. Even though it may be difficult to make written agreements, it would be desirable if tenant participation as farmer cooperators could be based on agreement between landowner and tenant that (a) assure that the trial plantings can take place, (b) the tenant will be secure from eviction as long as he meets his other obligations to the landowner, (c) assure that the benefits of increased production should go to the tenant farmer, if the experiments prove productive and profitable. If possible, it should be all the benefits of any increased production going to the tenant-farmer, since the landowner would indirectly be provided the benefit of a project underwritten minimum production (in case of crop failure) and therefore have greater assurance of receiving his customary share of the product. However, if needed, the customary share of increased production might go to the landowner (up to no more than the legal maximum equivalent of one quarter of the crop). This might be considered reasonable to secure his consent and cooperation, especially if it secured the continued involvement of the landowner in providing customary services such as consumer and production credit and other support for the farmer-cooperator household.

Thus, even though landowners, other than small scale owner-operators will not be the target farmer-participants and beneficiaries of the project it will be necessary at most of the sites to seek their consent and cooperation with respect to participation of tenant-farmers. The importance of this element suggests that in project sites where tenancy rather than owner-operator tenure arrangements prevail small farmer-participants should be clustered in areas around the lands of cooperative or consenting landowners. Some clustering of farmer-cooperators into a small number (perhaps one to four) barangays is essential given the difficulties for the SRMUs to service farmer-cooperator experiments if they are scattered over a number of locations in upland municipalities where travel is very difficult.

These land tenure security and sharing of benefit considerations for the selection of barangay sites and farmer-cooperators will have to be tempered with other considerations: -

- (i) The presence in a barangay of active formal or non-formal barangay-based and farmer oriented organizations and their leaders, such as Barangay Councils, Farmers Association's Samahang Nayons (pre-cooperatives), Agrarian Reform Beneficiary Associations, Free Farmers Cooperatives of the Free Farmers' Federation, that can service and encourage farmer-cooperators in the management and implementation of their lands, provide for exchange of ideas and problems among farmer-cooperators, and subsequently, help in the promulgation of successful farming system modifications to wider groups of farmer adopters. Unfortunately, there are relatively few barangays that have active government approved organizations that could serve these roles; understaffing in the field in Region VIII is not restricted to the Ministry of Agriculture.
- (ii) The presence of vocational educational institutions, even just an Agricultural high school, in the vicinity of a project site is likely to provide the opportunity for some routine support and monitoring for farmer-cooperators by the institution under SRMU supervision. It also increases the likelihood that there will be potential farmer-cooperators or younger family members from cooperator households who have some practical training in agriculture, as well as the experience of being a practicing farmer.
- (iii) The criteria for the selection of a farmer-cooperator must include his experience in growing the primary crop that provides the focus for farming system development, his current active involvement in growing that crop or crops, and his interest and ability (including his own and his family labor availability) to take on likely farming system modifications, including perhaps new crops and enterprises that he might

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have no previous experience with and might involve additional effort. It is suggested that these experience, interest and capability criteria are more pertinent than any formal educational or training experience requirements. It is also suggested that availability of suitable land and availability and willingness to provide any additional labor and management time input that might be required to participate in farming system experiments is more important than capability to finance the trial enterprises.

**ANNEX C**

**SOCIAL SOUNDNESS ANALYSIS**

**C(2)**

**METHODOLOGY FOR SELECTION OF PROJECT SITES**

### METHODOLOGY FOR SELECTION OF PROJECT SITES

The proposed methodology for the identification of project areas within the Eastern Visayan Region VIII and the criteria for the selection for farmer participants in each area was a sequential one of successive narrowing the areas identified and criteria for selection of participants. First, from the most promising agro-climatic zones for the introduction of modified farming systems, then to the municipalities within agro-climatic zones where such modified farming systems would be introduced, then to the barangays (small villages/communities) within these municipalities in which the modified farming system would be adopted, and, finally, to the criteria for identification of a farmer-participants in these villages. The actual methodology used in the identification of project sites differed from this one in a major respect. The actual selection of project sites at each level was conducted in an iterative fashion. This involved successive refinement of the criteria at each stage as a result of trying to apply criteria and then making visits to zones, municipalities or barangays as the case might be on the basis of these criteria. In so far as the criteria proved to be inconsistent, not specific enough, or too specific so that no project sites met the criteria, it proved necessary to move back to the criteria themselves rather than proceed on to the next level of criteria and selection. For example, the initial criteria for selection of municipalities from agro-climatic zones proved inadequate in a number of respects when the municipalities were visited for the purposes of identification of project villages within those municipalities. In a number of cases it was found that there were no barangays that matched up with the criteria of the agro-climatic zone for which the municipality was selected. It proved necessary to return to the criteria by which agro-climatic zones were to be defined and the criteria by which the municipalities from those zones were to be selected. As a result of this process, at quite late stages in the field investigation when primary focus of work was on the identification of criteria by which farmers should be selected, changes were still being made in the final list of municipalities in which the project sites would be located. The consequence of this iterative process of selection at different levels is that the details of the socio economic conditions, criteria for farmer selection, and even general information about the municipalities themselves differ substantially between the different locations selected.

However, this process of identification did not undermine the underlying methodology that had been proposed. While it was not possible to pre-define the agro-climatic zones, as had been hoped, it was still possible to check to see if the agro-climatic zone definitions and the corresponding primary crops grown in them were adequate for project site identification or whether the criteria should be complemented or substituted with socio economic criteria. At the level of identification of municipalities within an agro-climatic zone, it was possible to check to see if there were sufficient farmers growing the primary crops to warrant the selection of that municipality. It proved possible to establish that there would be sufficient farmers that would adopt the modified farming system to be introduced into the zone and that these potential

participants have access to land, capital, credit, and markets to a sufficient degree to provide assurance that they would benefit economically (in terms of income, improved nutrition, or otherwise), if the modified farming system to be introduced proved to be technologically successful. Specific attention was paid at this level to suggest arrangements that ensure benefits would go to the farmer adopters of the modified system, even where potential farmer adopters presently operate under conditions where increased production might have to be shared with landowners or other claimants.

The further deeper question was also addressed, if not always adequately answered, as to whether other farmers, and if so how many other farmers, would likely to be able to take advantage of modified farming systems that proved successful in terms of production and profit for the farmer cooperators. A major problem for this analysis was the unavailability of market studies that have information on the price, income, and cross elasticities of demand for the increased production of specific commodities that would likely ensue upon the widespread adoption of an improved farming system.

Finally, at the municipality level, it was possible to gain some insight, if not a complete picture, as to any likely adverse effects of the adoption of improved farming systems by initial participants, and subsequently by a wider group of farmers. For example, it was possible to make the judgment that landless laborers would be unlikely to be adversely affected by the adoption of a farming system that intensified land and labor use throughout the year, but it was not possible to indicate the quantitative effects on the demand for agricultural labor of the adoption of an improved farming system. It was also possible to indicate that farmers who were working under a share tenancy system or were tenants-at-will subject to the wishes of the landowners as regards to the distribution of increased production would be unlikely to adopt an improved farming system that involves substantial increases in the amount of labor utilized, unless arrangements could be worked out whereby return for this additional effort went in substantial part to the tenant farmers. If such arrangements could not be worked out then such share tenants or tenants-at-will would likely be adversely affected by the adoption of improved farming systems by farmers or tenants who could be assured of the benefits of their efforts in adopting improved farming systems.

In summary, while it was not possible to specifically identify the villages in each municipality of the selected promising agro-climatic zones in which the project sites should be located, and the benefits to be derived directly by the farmer participants in these villages or the indirect benefits that might subsequently be derived by a wider group of farmer adopters within the municipality and the agro-climatic zone, it was possible to quite closely specify the criteria for the selection of villages, and the socio economic characteristics of farmer participants.

In the research phase and the subsequent wider adoption at the pilot production system phase, it was possible to give some estimates as to the nature and extent of the likely benefits to be derived, but no quantitative analysis of the element was possible at the municipality level.

Some progress was made in the criteria for selection of participant farmers in so far as these criteria will be based upon their socio economic status, their production patterns, income levels, and access to resources (land, capital, credit, and labor) and markets. These criteria should be sufficient to ensure that project benefits do indeed go to small farmer participants in the development of improved farming systems and the subsequent small farmer adopters of pilot production systems, or at least to ensure that those differentially more affluent would not be the primary farmer participators and beneficiaries. However, it was found that the complex farming systems and locationally specific institutional systems would make it necessary to set up criteria for selection of farmer participators on a location-specific basis.

#### Selection of Project Sites: The Methodology in Practice

The following account of project site selection in the field gives the rationale by which project criteria were developed tried out and through the selection process itself, were modified and subsequently tried out again. The full location descriptions and socio-economic characteristics of farmers and likely farmer participators in these locations is left to the annex on project site descriptions. Here are outlined the processes by which site selection criteria were established, tried out and modified, and how this process led to the final selection of project sites.

#### Identification of Agro-Climatic Zones

It had been assumed that promising agro-climatic zones and their corresponding primary crop or crops in which modified farming systems would be tried and developed under this project could be pre-identified on the basis of agronomic and other research of VISCA, the Ministry of Agriculture's adaptive research in the region, and other knowledge as to agriculture and farming systems in Region VIII. This presumption was based on the experience of IRRI's cropping systems division work in the identification of agro-climatic zones; the Ministry of Agriculture's KABSACA Program; and, the work of the Regional Training Center (RTC) at VISCA in defining zones that are locationally and crop specific for the purposes of training farmers from those zones. In each of these cases it had been possible to define agro-climatic zones and primary crops associated with them as the basis of a program of either farming system development or of farmer adoption of improved farming systems and practices.

For a number of reasons, in the development of this project proposal it was not possible to completely pre-identify agro-climatic zones

and their corresponding primary crops. Probably the most important reason for the difficulties in the specification of agro-climatic zones in Region VIII is the particularly complex farming systems that prevail in the region and the completely inadequate knowledge base as to the cropping patterns and crop areas of specific crops that prevail. Depending upon which survey or estimate that one uses, somewhere between 40 and 60% of the cultivate area of the region is classified as coconut lands. It is most difficult to specify agro-climatic zones and corresponding primary crop(s) except for a few distinct agro-climatic zones where specific conditions prevail and crops predominate, such as: (i) the north western tip of the island of Leyte consisting the municipalities of San Isidro, Calubian, Tabango, and the northern parts of Vijiaba where corn and upland rice are grown on well-drained predominately lime stone soils with less rainfall than most of the rest of the region and limited vegetative cover on much of the land; (ii) in the Ormoc basis hinterland of western Leyte (in the municipalities of Kananga, Matag-Ob, and the lowland areas of Ormoc city itself) where irrigated or rainfed rice production prevail, along with sugar in the not so well irrigated areas, and, (iii) in the upland mountainous spines of both the islands of Leyte and Samar which are either not suitable for agricultural production or are so inaccessible as to remain in either their original vegetative or in densely forested cover. Even in these distinct areas there are substantial areas devoted to coconut production.

In other agro-climatic zones and areas that can be identified in relation to specific primary commodities such as: (i) Sogod, Bontoc and Maasin in southern Leyte (abaca areas); (ii) expanding areas of coastal municipalities of eastern Leyte where irrigated rice production is replacing corn production as irrigation systems are put into place; and (iii) some selected municipalities such as Basey in Samar province, which specialize in root crop production, the inter-relationship of these crops with coconut production and the relative importance of coconut production make the areas indistinguishable from other areas designated as "coconut" areas.

The crux of the problem is that while it is pre-supposed that agro-climatic zones promising for farming system development can be identified, it is presumed that it would not be appropriate to base that development upon coconuts as the primary crop. This position is based on the observation that many and probably most of the coconut trees and areas are owned by people who do not operate the land themselves, at least insofar as the farming activities are concerned.

The underlying presumption in this project is that in the areas involved where coconut production prevails that the primary crops to be developed in the context of the overall farming system will be those that are grown either underneath the coconut trees or in areas adjacent to the coconut areas. It is also presumed, correctly, that these food staple crops such as rice and corn, root crops such as camote, cassava and gabi, vegetables, and small livestock enterprises especially goats,

pigs, and poultry, that are grown or operated underneath or adjacent to the coconut areas are controlled and operated by the tenant farmers and tenants-at-will who are laborers in the coconut groves and in the production and processing of copra. Thus, in order to focus research and farming system development on crops grown by small farmers and thus of likely benefits to small farmers, the primary crops to be identified for agro-climatic zones are those complementary crops or enterprises that are or can be grown either under or adjacent to the coconut areas by small farmers rather than designating coconuts as the primary crop.

In specifying agro-climatic zones for this project a complex set of diverse farming systems have to be considered and the likely beneficiaries depending on the choice of the particular primary crop to be developed have to be taken into account. This is in contrast to the IRRI cropping system specification which was done for relatively limited and closely defined project development areas (land settlement/projects); in contrast to the KABSACA Ministry of Agriculture identification of zones which were restricted to predominately unirrigated rice growing areas; and, in contrast to the agro-climatic zone specification by the RTC of VISCA where the specification of primary crop was not a critical factor and restrictions on primary crop to those grown by small farmers/potential beneficiaries was not a consideration.

In summary, the much more limited data on coconut production, ownership, operation and farming practices by areas in the region and the even more limited sometimes non existent data on crop production and agriculture enterprises conducted by small farmers in conjunction with coconut tenancy and landless laborer jobs in coconut areas and the dynamic nature of farming system developments in many parts of the region, necessitated a much more tentative and pragmatic approach to specification of agro-climatic zones and criteria by which they would have to be established.

A second major difference in the proposed project design here as compared with other attempts to specify agro-climatic zones as the basis of farming system development is the deliberate attempt to involve the Ministry of Agriculture in Region VIII, both in project design and in the research phase of the farming system development, rather than waiting to involve them in the subsequent implementation phase of a proven farming system to a wider group of farmer adopters. Hence, both the Ministry of Agriculture in the region and the regional NEDA played leading roles in the specification of the sites at which the project would be implemented. Their concerns were more pragmatic than perhaps an exclusively academic group of researchers might have taken in trying to specify agro-climatic zones. Right from the beginning they were concerned with questions of balancing the location of project sites throughout the region for political purposes (so that each of the provincial areas might be presented in project site selection), by ethnic balance considerations (so that the Waray and Cebuano groups might be adequately represented by project sites), by administrative considerations of the Ministry of Agriculture (so

that personnel assigned throughout the region would not be overburdened in any specific area by the need to fill Site Research Management Unit positions, and NEDA's overall development considerations so that the selection of project sites might coincide and complement other development strategies for Region VIII.

Given the difficulties of adequately defining agro-climatic zones in Region VIII and the pragmatic considerations of the team specifying project sites, it is not surprising that in the initial attempt to specify zones, primary crops and municipalities that might represent those zones should have been based on a wide range of criteria, rather than a specification of agro-climatic zones first and then municipality sites to represent those agro-climatic zones. The project design team, led by participants from the regional Ministry of Agriculture office and the regional NEDA office proceeded to review each "Integrated Agricultural Development Area" of the Region (zones established by NEDA and the Ministry of Agriculture to pursue more general agriculture development programs for the Region) to determine predominate primary crop or crops in each, then to review each municipality of each Integrated Agricultural Development Area to determine which, if any, of the municipalities might both represent a specific agro-climatic zone and primary crop and to represent the sub-region. Initially, on this basis eleven municipalities distributed throughout the provinces and sub-provinces of the region (except for Northern Samar which was excluded because of the major Australian Agricultural Development project in that province) were selected and preliminary identification of primary crops grown in those municipalities made, as listed below:

1. Caibiran - Sub Province of Biliran: Coconut production predominates. Inclusion of a project site in the Biliran sub province was given high priority by the Regional NEDA office. It was also hoped that the Biliran Agricultural College might serve as a local base for the Site Research Management Unit.
2. Villaba - Cebuano area of northern Leyte: Coconut production and other tree crops predominate in the southern half of the municipality. There are extensive cattle grazing lands and large ranch enterprises in the northern half of the municipality. The municipality had been designated by the Ministry of Agriculture as its pilot development municipality for the Integrated Agricultural Development Area of N.W. Leyte. The Leyte National Agricultural College was thought to be a possible local base for the Site Research Management Unit.

3. Matalom - The southern-most municipality of the western side of the province of Leyte; extensive corn production in the upland areas away from the coast with farms mostly owner-operated by very poor farmers.
4. Julita - A municipality in the Waray areas of the eastern Leyte plain with small parcels owner-operated predominating (formerly) a major corn growing area, along with extensive small holder coconut estates.

A major rationale for its inclusion was the desire to include at least one municipality from the Waray speaking area close to Tacloban. Two problems hindered the identification of a suitable municipality from this area:

- (i) Many of the upland municipalities of this area excluded because of their designation as part of a geothermal development zone. Lands under this designation, have been subjected to a freeze with respect to titling, and registration of other transactions, including the raising of capital on the basis title. Given the present insecurities with respect to land tenure and land transactions, it was decided to exclude the geothermal development zone areas as possible project sites.
- (ii) Most of the lowland municipalities of this area are being transformed from rain fed rice and corn production into irrigated rice production as extensive irrigation systems are being developed. It had been agreed to focus only on farming systems in upland and rain fed areas on the grounds that development of improved farming systems in irrigated areas with rice as the primary crop has already been accomplished elsewhere in the Philippines (based on the work of IRRI and the Ministry of Agriculture's adaptive research). Hence, these irrigated rice areas were also excluded from project site selection consideration.
5. Bontoc - Province of S. Leyte: Coconut production grown in conjunction with abaca, especially in the more recently developed upland areas of the municipality. It was recognized that the neighboring municipality of Sogod might also have substantially the same characteristics and perhaps even larger areas under abaca.

However, it was noted that the municipal administration of Bontoc have been both most diligent and enthusiastic in developing a municipal development plan according to the new guidelines of the Region VIII NEDA and Ministry of Human Settlements offices. This would also mean that there would be substantial current data by crop and by barangay for the municipality as well as a favorable environment in terms of municipal staff for enlisting farmer cooperation.

6. **Silago** - Province of Southern Leyte - the last municipality of the south-eastern shoreline of Leyte. The municipality is very large and includes rice production on an upland plateau, coconut and corn growing areas in the upland hill slopes, and a limited amount of irrigated rice along the coastal strip. The major consideration for inclusion seemed to be the strong desire to include one of the isolated municipalities of the Pacific coastline. These towns are isolated and undeveloped because road access is only possible from the southern tip of S. Leyte (from Liloan) and even then a on a bad road that is not always open. Apart from access problems it is also an area where security problems have been experienced.
7. **Basey** - Samar Province: A municipality with large areas of irrigated rice lands and areas planted to coconut. Farmers specialize in the production of root crops grown in the swampy peat/loam soils underneath the coconut in the lowland barangays in from the coast. The municipality is the first one after the Samar - Leyte bridge on the Samar side. Interior areas of the municipality have experienced some security problems.
8. **Pinabacdaw** - Samar Province: A coconut growing municipality, also with some root crop production. Security problems experienced just before project site proposals were made raised questions as to whether this would be a feasible selection.
9. **Gandara** - Samar Province: A large municipality with substantial areas of coconut, upland rice and corn as well as more limited areas of irrigated rice, livestock grazing lands and small holder sugar plantations. A major consideration for its nomination again seemed to be the enthusiasm of municipal officials for the municipal development plans initiated by NEDA and MHS. While the municipality is distant

from Tacloban and even further from VISCA, Baybay, Leyte (Gandara is located on the highway between Catbalogan and Calbayog, Samar) it was felt that the location of the B.P.I. - Ministry of Agriculture research station and the Gandara Agricultural College nearby might enable these distance problems to be overcome.

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- **Maydolong and Salcedo: Eastern Samar**  
Both of these municipalities were described as predominately under coconut where agricultural production had been established but also with substantial timber concession and other forested areas in the uplands away from the coastal strip. There was strong interest from NEDA that, if at all possible, a municipality from Eastern Samar be included in the project sites, inspite of both severe logistic problems for MA and VISCA in establishing SRMU's in such remote and undeveloped areas and the intermittent but chronic security problems in the province.

12.

- While no specific municipality was identified a request was made that consideration be given to include one project site within the Sab-a-Basin Development Authority area. This area is on the northern shoreline of Leyte, not far north and west from Tacloban. The basin area is on the northern shoreline of Leyte, not far north and west from Tacloban. The basin area drains out to the north. It was largely undeveloped until the Basin Authority was established to drain off swampy areas and establish settlements for irrigated rice production under large scale corporate enterprises. Because of technical problems in draining the land and costs of using mechanized equipment for agriculture the project has reverted back to public control (National Grains Authority) who have been trying to establish various crop production schemes, including corn, on a more modest scale.

Substantial problems with the selection were immediately apparent. First, at the most simplistic level the original expectation had been for the identification of no more than eight project sites and by preference, just six. There would be far reaching implications for personnel to be assigned to the project by the Ministry of Agriculture the research support staff needed from VISCA and financial requirements of the project if research management units were to be established in eleven sites and farming system research support provided to each of these teams.

Second, it was evident that the selection has been heavily influenced by the desire to have political balance throughout the region of proposed project sites even if this meant locating projects in places

that would be difficult to reach and/or where security problems would provide for an uncertain research environment. Given these considerations, but only after much deliberation the following proposed project sites were excluded: (6) Silago, S. Leyte; (8) Pinabacdaw, Samar, (10) and (11) Maydolong and Salcedo, both in Eastern Samar.

A more fundamental concern about the selections was that the identification of agro-climatic zones and the primary crops associated with them seem to have taken second place to some of the other criteria for site selection. This problem seemed to be particularly evident in what was described as coconut growing areas. It was at this stage that it was recognized that it would be necessary to define coconut areas not in terms of the primary crop coconut but in terms of the predominate complementary crop that was grown either underneath the coconut or in areas adjacent to the coconut areas. The identification process was turned around; the primary cropping system that might be prevalent and represented in the region were listed down as below and the initial selection of municipalities reviewed to determine where they fit in relation to the predominant farming system classification.

<u>Primary Crop/ Enterprise</u>	<u>Primary Complementary Crop/Enterprise of Small-Scale Farmers</u>	<u>Municipalities</u>
Pasture land/ livestock	-	None <sup>1</sup>
Coconut	Root Crops Tree Crops	(Salcedo) <sup>3</sup> (Maydolong) <sup>3</sup> Villaba, Caibiran (Silago) <sup>2</sup>
Abaca	-	Bontoc or Sogod
Corn	Upland Rice Root Crops Vegetables	Julita <sup>3</sup> Matalom <sup>3</sup> -
Upland Rice	Corn Root Crops Vegetables	Gandara <sup>3</sup> Basey <sup>3</sup> (Pinabacdaw) <sup>2</sup>

1/ None, because there is no municipality where small farmer livestock production predominates. There are a number of livestock enterprises in N.W. Leyte and scattered elsewhere but these are of large scale.

2/ The bracket indicates that the municipalities were excluded on other grounds (See above).

3/ Some of these designations were subsequently altered or refined on the basis of municipal data and field visits.

On this basis a preliminary selection of six municipalities<sup>4</sup> representing six farming systems based on different primary crops (or complementary crops) was made:

Abaca	- Bontoc or Sogod, S. Leyte
Corn	- Julita, Leyte (eastern Leyte, Waray area) Matalom, Leyte (eastern Leyte, Cebuano area)
Coconuts w/tree crops-	Villaba, Leyte (Northwest, Cebuano area)
Coconuts w/root crops-	Basey <sup>5</sup> , Samar (near Tacloban)
Upland Rice	- Gandara, Samar

Further problems with the identification of municipalities and corresponding primary crops emerged only when initial visits to the municipalities were made for purposes of data collection on a barangay basis and to visit field locations where the primary crops are being grown.

A general problem that emerged first when visiting Matalom and Bontoc but which was found to apply in each of the proposed municipalities was that the designation of a primary crop on a municipal basis did not reflect the far more mixed production in each municipality than these designations would suggest. In particular, in each municipality there are substantial areas planted to coconut with a wide variety of other crops were disaggregated on a barangay (village) basis that it became possible to identify areas within the municipalities where there did seem to be cropping patterns corresponding to the designation of primary crops and complementary crops, as listed above.

A more serious problem emerge with the designation of Julita as a corn producing area. It was found on the basis of travelling through the area and on the basis of discussions with Ministry of Agriculture officials in the Provincial Leyte Office, that the area is no longer planted to corn. In recent years there has been a rapid shift into irrigated rice production. A further review of the characteristics and primary crops grown in the other eastern Leyte Waray speaking areas showed that there were no alternate municipalities now growing or likely to be still growing for very much longer corn as a primary

4/ Caibiran, Sub Province Biliran was excluded as a project site on the grounds of reported extremely difficult travel to the island from Leyte, Leyte on the main island.

5/ Basey, was redesignated as a coconut growing area with root crops as the complementary small farmer crop. There are substantial rice growing areas in the municipality but these are in the hinterland where the security situation was reported to be not completely stable.

crop in any substantial amounts in any of the municipalities of the area. Consideration was given to including Mahaplag, an internal valley municipality on the southern boundary of Leyte with the province of Southern Leyte. However, a field visit to the municipality and a review of municipal crop data by the farming systems consultant included in the project preparation team, showed that irrigated rice had already replaced and would replace corn production in the lower areas of the valley, and in the upland areas coconut and abaca are grown in a mixture very similar to the upland areas of the adjacent municipalities of Bontoc and Sogod of Southern Leyte province.

A similar but not so serious problem emerged with respect to the designation of Villaba as a coconut growing area where there were also complementary tree crops such as rubber, coffee and cocoa planted. A review of municipal data on crop areas by barangay and field observation showed that there were indeed some barangays where there are other tree crops planted as well as coconuts. However, it did not seem that these other tree crops were being planted or owned by small farmers working either as tenants or as landless laborers on the coconut lands. Rather, it would appear these were alternative experimental enterprises by landowners with substantially larger holdings and perhaps, using landless laborers as their farm work force.

Further the municipality has a farm more mixed cropping pattern than the designation would suggest. Little of the northern half of the municipality is planted to coconuts. There are substantial pasture lands and major livestock enterprises. There are also substantial numbers of tenant farmers and landless laborers growing rice and upland corn. Consideration was given to selecting Villaba for its tenant farmers farming rice or corn as the primary crops in the northern part of the municipality, rather than barangays in the south where coconut and other tree crops are purported to prevail. However, this was decided to be unwise given the long and bitter history of land cases between one major landowner in the northern half of the municipality and the rice and corn tenants. These disputes involved the displacement of substantial numbers of rural people who claim that they still have tenancy rights to lands that were temporarily switched from rice and corn production to sugar in the late 1960's. These tenant claimants have been replaced but are still living in the area as landless laborers. Further disputes and tenant displacements occurred when the landowner converted some of the better lands to pasture and offered his tenants alternative larger lands elsewhere but in dry and remote upland areas. Given these problems, there is a likelihood that any attempt to improve corn or upland rice farming systems in the area would indeed benefit the present tenants but would be deeply resented by displaced tenants, now landless laborers, even if it was not economically advantageous to these landless laborers (because of the possibilities of more work). It was therefore not recommended to include Villaba in order to focus on upland rice or corn farming system development.

It was considered desirable to include a municipality where substantial areas of corn are grown in the farming system to substitute for Julita for a number of reasons:

- (i) There has already been substantial research on upland corn production and technology at VISCA, with the MA in the Region and elsewhere. The possibility of being able to provide profitable and productive modification of a farming system based on corn quite quickly are promising. An early success in moving from adaptive research with farmer cooperators to a more widespread adoption would help validate this way of helping to improve farming systems and thereby benefit small farmers.
- (ii) The assurances that the market for corn is relatively good. The market has considerable depth: the Cebuano people like to mix corn and rice as their staple. (c.f. the Waray who would rather eat rice if it is available). Further, there is a substantial market demand for corn for feed grain purposes both in Region VIII and other areas of the Visayas. The Eastern Visayas Resource Trading Company has been established by the Sab-a Basin Authority to set up a major corn feed mill in Tacloban. If this mill is to run at anything close to economic capacity it is essential that substantial supplies be shipped there from all over northern Leyte and southern Samar. It is uncertain whether regionally produced and milled corn will substitute for the present large commercial feed grain imports that come from Cebu. However, whether this happens or not, the market prospects for new or increased corn supplies from Leyte are excellent.

The prospects for corn are particularly attractive in the north west peninsular of Leyte because (a) the area is quite close (by boat) to the Cebu market for corn, (b) the Cebuanos of the peninsular traditionally include corn as a major staple in their diet and, (c) the marginal uplands of the area and drier climate limit the alternatives for other profitable or productive agricultural enterprises.

Although Villaba is on the edge of this zone, there are far larger numbers of leasehold tenants OLT beneficiaries, even amortizing owner corn farmers in the three municipalities further to the north: Tabango, Calubian and San Isidro.

San Isidro was visited as an alternate selection for a corn primary municipality. San Isidro was chosen over Tabango and Calubian mainly because the Ministry of Agrarian Reform (MAR) and Ministry of Agriculture offices for the area are in that municipality. This whole area was formerly owned by a small number of hacenderos, in some cases with thousands of hectares of upland rice and corn lands under tenancy. However, the municipalities have been a major focus of activities of the MAR in transferring provisional titles (CLT's) to former tenants, and more recently of the Land Bank of the Philippines servicing amortizing owners.

There are several problems in recommending San Isidro as a project site for farming system development where corn is the primary crop:

- (i) The municipality is inaccessible; both to reach the town from Ormoc (minimum of 4 hours), VISCA, Baybay (5 hours) or Tacloban (6 hours) four wheel drive is essential because of the very poor roads) and for travel from the town to the barangays, because the mud tracks are frequently impassable. A SRMU team stationed in San Isidro might have to do a lot of trekking to meet with farmer cooperators unless the cooperators could be clustered into a few relatively accessible sites.
- (ii) Much of the land is badly eroded, yet land values established on the uplands for agrarian reform amortization purposes do not seem to reflect the marginal nature of the land. This means that many farmers face very heavy debt burdens that increases in productivity could do little to alleviate. (See project cooperator selection considerations).
- (iii) The Ministry of Agriculture has very limited field staff in northwestern Leyte. The field office is located in San Isidro but the office staff of five is meant to cover all MA work for five municipalities down to and including Villaba. The MA has put its office in San Isidro but has designated Villaba as its municipality for agricultural development in the sub-region. Hence, it would not be feasible for both Villaba and San Isidro to be included in the final project site selection.

There may also be regional NEDA political reasons for retaining Villaba as a project site. Unless this is compelling rationale, the recommendation is to include San Isidro and not Villaba.

This recommendation is complemented by a further recommendation that a coconut growing municipality on the eastern side of Leyte (Waray areas) be added. In order to pursue this recommendation, Jaro was identified as a prospective project site on the last field visit of the project design team. Originally, the municipality had not been considered because some upland parts of the municipality are included in the geothermal development zone. However, a large part of the municipality, including the lowland areas, is planted to coconuts.

There are also a wide range of crops grown underneath or in conjunction with coconuts, including tree crops (cocoa and coffee), fruit crops (banana and pineapple) and root crops (including contract planting of cassava for a new cassava starch mill in Kananga). There are both small and large landowners, but sufficient variability that careful selection of farmer participators should meet social soundness considerations. Jaro municipal staff have not been among the more enthusiastic participators in formulating municipal development plans, so data current on agriculture in the municipality is somewhat sketchy. In spite of these problems, the municipality is recommended for inclusion as a project site.

In summary, six municipalities have been recommended with the attached primary crop identifications for the establishment of Site Research Management Units and recruitment of farmer-cooperators to try out modified farming systems: -

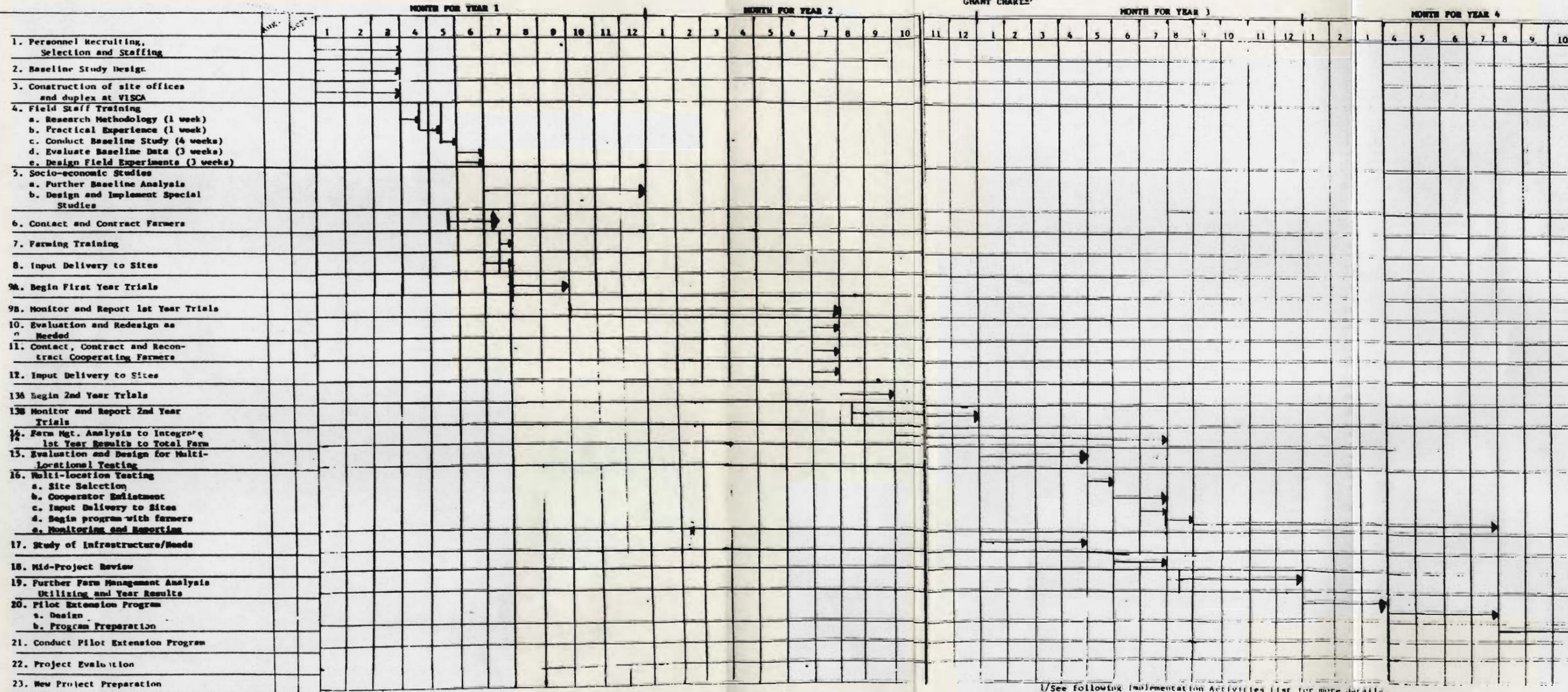
<u>Primary Crop</u>	<u>Major Complementary Crop(s)</u>	<u>Municipality</u>
Abaca	(Coconut)	Bontoc, S. Leyte
Coconut	Root Crops	Basey, Samar
Coconut	Tree/Fruit/Root Crops	Jaro, Leyte
Upland Rice	Corn	Gandara, Samar
Corn	Root Crops	Matalom, Leyte
Corn	(Tobacco and Mango)	San Isidro, Leyte

**ANNEX D**

**IMPLEMENTATION ACTIVITIES LIST**

ANNEX D  
(page 1 of 6)

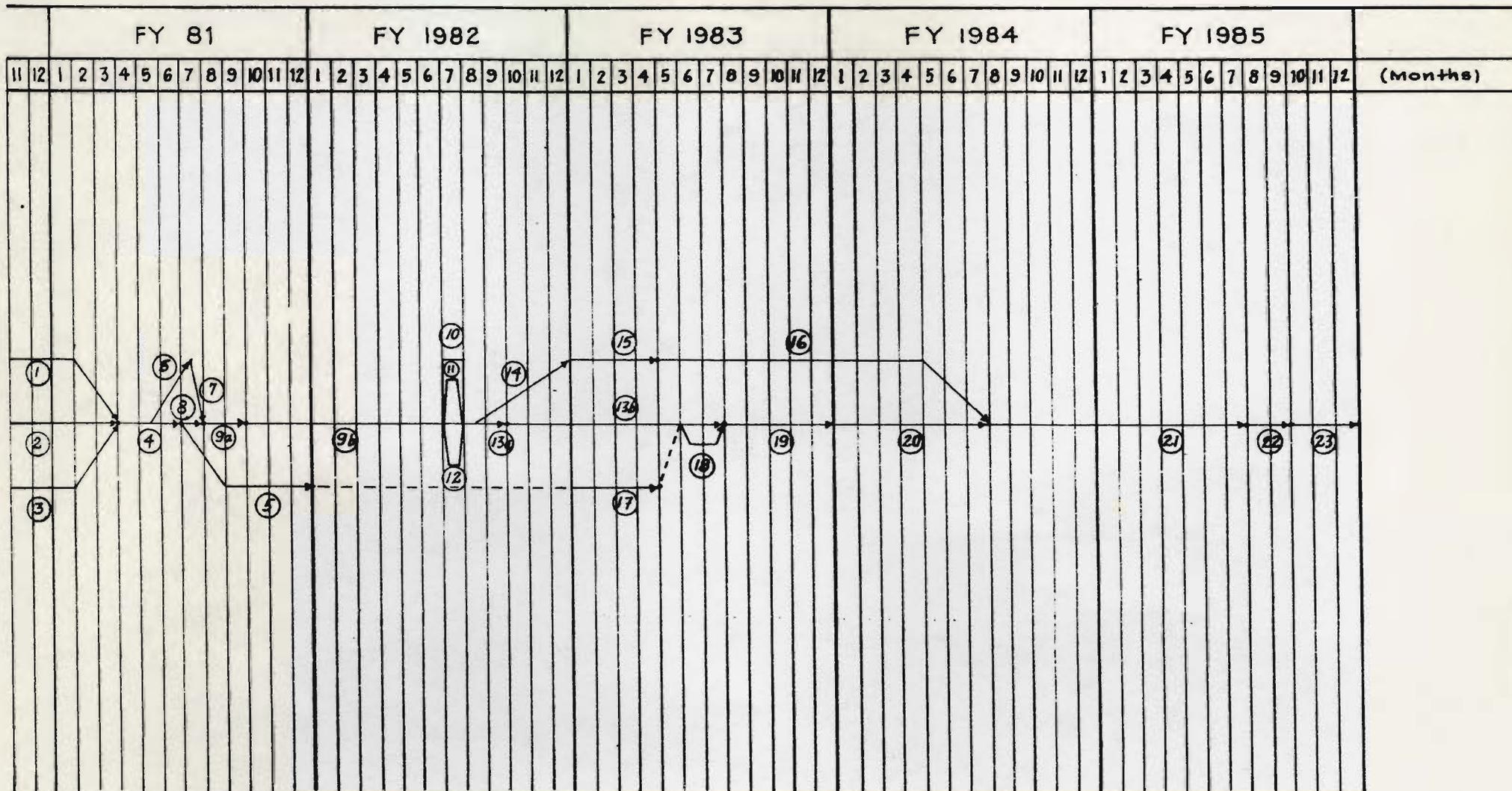
GANTT CHART<sup>1/</sup>



<sup>1/</sup>See following Implementation Activities List for more details.

ANNEX D  
(page 2 of 6)

IMPLEMENTATION ACTIVITIES FLOW CHART



Note: Encircled Numbers correspond to activities described in the Implementation Activities List.

IMPLEMENTATION ACTIVITIES LIST

ACTIVITY

(1) Personnel Recruitment

Ministry of Agriculture identifies personnel to be detailed to project; establishes contractual arrangements for non-government employees and agreements with local agricultural institution (college or high school) for research assistants. This step will require memorandum of agreements between participating GOP institutions, including identification and nomination of the Regional Project Management Committee and operationalizing the latter. Each implementing agency (MA Region VIII and VISCA) will identify participant nominee for first year of training.

(2) Baseline Study Designed

Pull together existing farm system baseline studies already conducted or being conducted for use in designing EVFP baseline study which will be finalized during the training exercise noted in step 4 below.

(3) Construction of site offices and duplex on VISCA campus.

(4) Field Staff Trained

All field staff (SRMU's) and selected Region VIII MA/VISCA staff will begin training at VISCA. The course content will be similar to that of the training being conducted by IRRI/UPLB under the IERD financed ABC Resettlement Project. The training will be 3 months and include methodology, practical experiences as well as visit(s) to one or more of the ABC sites. Trainees will conduct baseline studies in each of the identified project areas. The main purpose of this baseline study is to identify constraints and flexibility of the current farming systems in each area. This information will be used to design experimental trials for each homogenous subgroup or recommendation domain. The baseline study design should be as simple and short as possible. More detailed socioeconomic and other special studies can begin later and are described under #5 below. One of the outputs of this training will be the preparation of research proposals for each project area, including inputs required. Site research proposals from each project areas will be submitted to Regional Management Committee for approval.

(5) Socioeconomic studies as a follow up to Step #4 above will be conducted by the VISCA staff (may include Ag Econ/Sociologist/Extension Training staff). The main purpose of these studies is to gather baseline data so that impact on beneficiaries can be measured at a later date. Other special, indepth studies such as time allocation, studies factors influencing farmers to adopt or not adopt new technology, etc. may also be conducted.

(6) Identification of contract farmer in each of the project sites. The conducting of the baseline study may be used to select potential

farmer cooperators. As the research designed are finalized it is expected that individual consultations will be made with the contract farmers to get their input into the research that will be conducted on their farms.

(7) Farmer Training

Training will be conducted at the field sites for the purpose of informing farmers of the project objectives as well as research methodology, etc.

(8) Input Delivery

It is envisioned that each site would receive an adequate peso budget to buy necessary inputs. Delivery of plant materials and other inputs provided by government will be done by VISCA and Region VIII MA office.

(9A) Begin First Year Trials

It may be decided that the trials will not begin simultaneously in all the project sites because of the potential delays in the delivery of equipment, inputs, etc. This decision will be made by the Regional Project Management Committee in consultation with SRMU's. Memorandum of Agreements will articulate when staff will be available and work will begin. The training of all staff will take place early on regardless of when actual site implementation begins.

(9B) Monitor and Report First Year Trials

Monitoring procedures, forms and expected outputs will have been developed in advance and included in the field staff training in Step #4. It is expected that monthly reports will be prepared at research sites indicating problems and progress with regard to research activities. Research reports will be prepared at the conclusion of each field experiment.

(10) Evaluation and Redesign as Needed

On the basis of previous 11 months M/E reports and preliminary research results, decisions can be made with regard to continuation and/or redesign of field experiments. New research proposals may be formulated in this period. As a part of evaluation, there will be an annual seminar where research findings from all project area sites will be presented and discussed.

(11) Contract/Recontract Cooperating Farmers

It is anticipated that a large number of research proposals conducted in Year #1 will be continued in Year #2. The number,

location, and selection of farmers in this step will be contingent on Step #10.

(12) Input Delivery to Site

This step is identical to Step #8, and again will reflect the requirements of Step #10.

(13A) Begin Second Year Trial

Repeat of Step #9A, nothing unique about this step. If all six sites have not been started this might be a logical time to include the remaining sites.

(13B) Monitor and Report Second Year Trial

Carries the same procedures and expectations as Step #9B.

(14) Farm management analysis to integrate first year results of total farm.

The purpose of this step is to apply the component research results to a range of differing farm resource conditions in order to evaluate suitability of the technology package to small farmers in the area. Particular attention would be paid to labor and capital constraints. This activity could begin earlier, as information become available. It is assumed it would be conducted by the farm management staff and students at VISCA.

(15) Evaluation and Design for Multi-Location Testing

This carries the procedures and expectations of Step #10 with the added expectation that further testing of the most promising technologies will be undertaken in new sites and under farmer-managed conditions as opposed to researcher-managed trials.

(16) Multi-Location Testing

The purpose of this step is to test the viability of the technology by subjecting it to a new location and under farmer-managed conditions. The selective technology is to be tested, the number of new locations and their selection would be decided upon by the Regional Project Management Committee and site research personnel and others on the basis of performance of the project to date. The methodology and procedures for implementing this activity will be worked out in the Regional Project Management Committee in consultation with other government agencies and private institutions.

(17) Study of Infrastructure and Other Needs

This activity will be undertaken by a specially designated task force which will pull together secondary data for use in deter-

mining future project needs such as markets, roads, credit, rural electrification, etc. which may be required as follow-on activities. The output of this activity is viewed as essential for the performance of activity Step #18 which follows. (The preliminary information plus information from the Interim review will give AID the necessary information to prepare a PID for a follow-on activity.)

(18) Mid Project Review

The purpose of the review is to evaluate on-going activities in relation to the project purpose being achieved. It will also provide USAID information necessary for making funding decisions on any follow on activity.

(19) Further Farm Management Analysis

Extension of activity of Step #14 need not be restricted to the indicated period.

(20) Pilot Extension Program

This step requires a 7 month period for design and program preparation of a pilot extension program (Step #21). It will be launched at the beginning of the 3rd cropping year of the project's life (8th month of the 4th year of the project).

(21) Conduct Pilot Extension Program

(To be articulated by Jojo and Gil)

(22) Final Project Evaluation

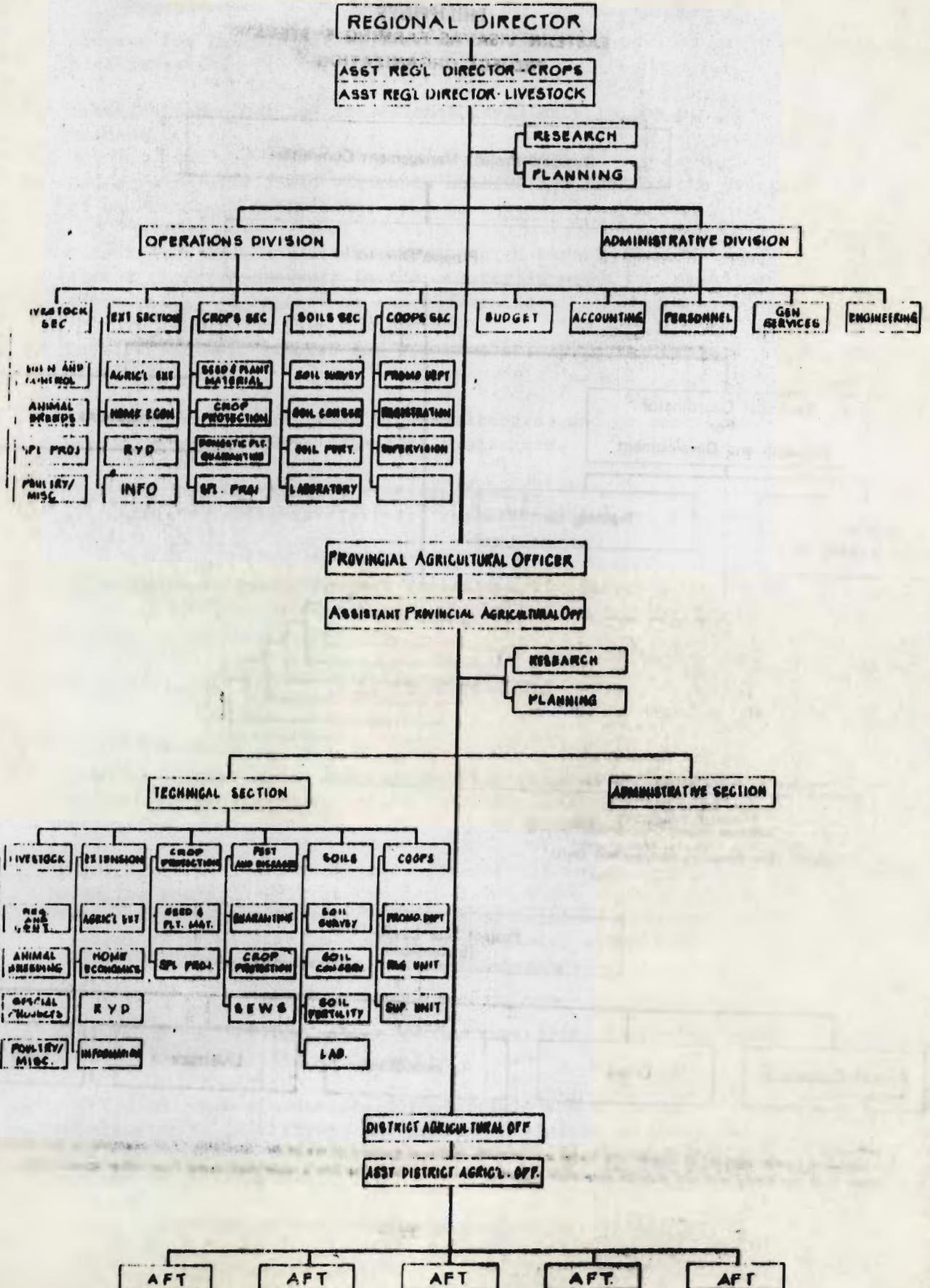
(23) PP prepared for new project

JAFot1:THobgood:zcc  
ORAD:6/3/81

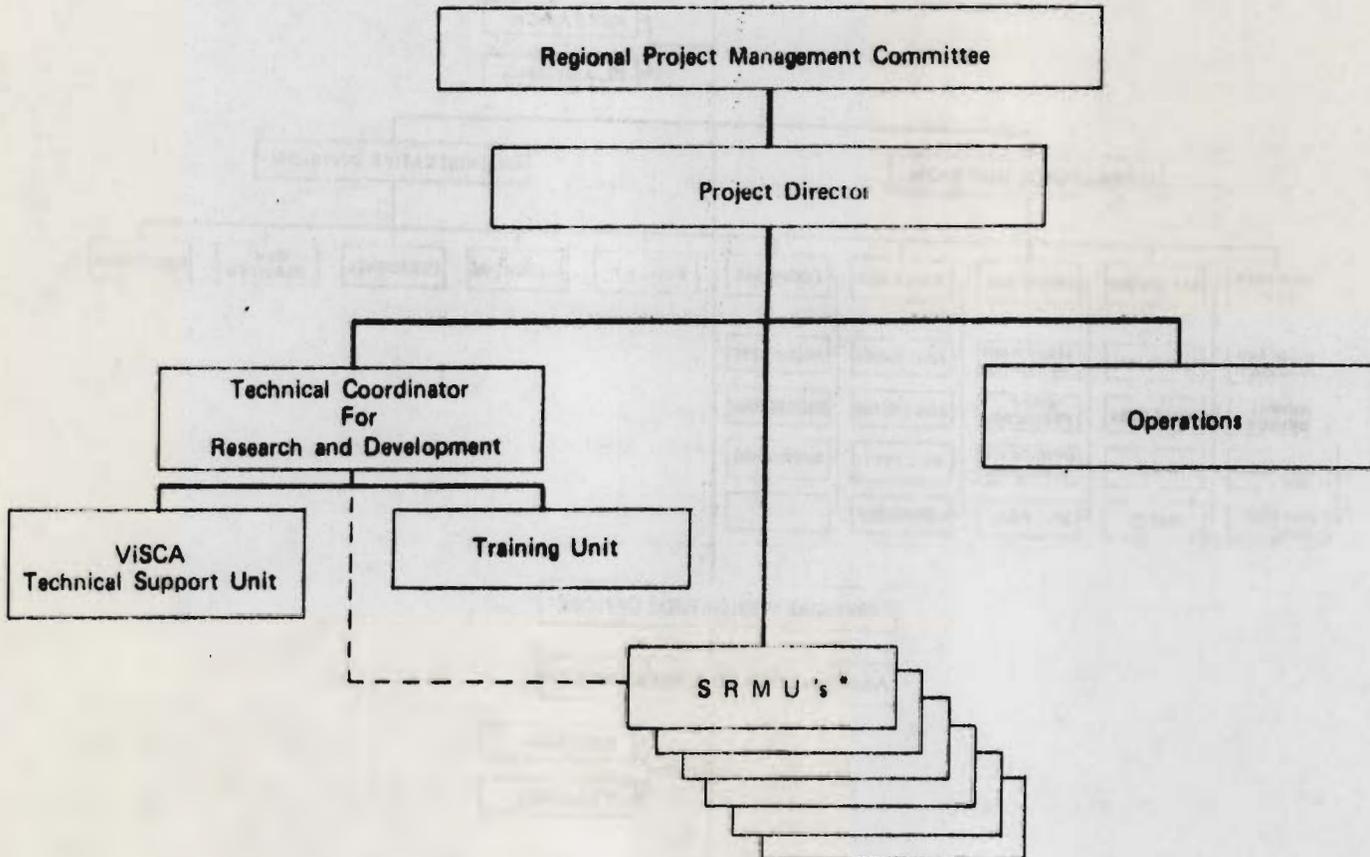
**ANNEX E**

**PROPOSED ORGANIZATIONAL CHART**

REGION VIII MA  
ORGANIZATIONAL STRUCTURE

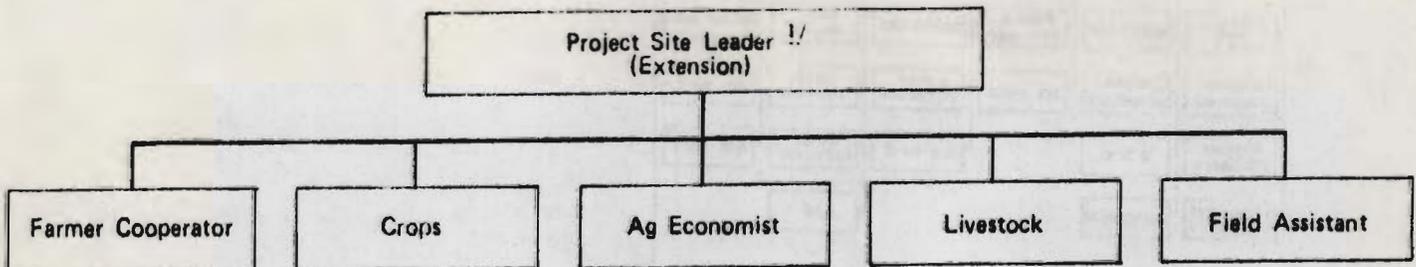


**PHILIPPINES  
EASTERN VISAYAS FARMING SYSTEMS  
PROJECT ORGANIZATION**



----- Technical Support/Guidance/Training

\* SRMU (Site Research Management Unit)



<sup>1/</sup> Project Site Leader will act as overall site leader and provide technical support in his or her specialty. For example, in this case the leader comes from the BAEx and will provide extension expertise. In other cases the Site Leader may come from other specialties.

FUNCTIONAL DESCRIPTIONS

Regional Project Management Committee

1. Formulates policies, rules and guidelines for the coordination and implementation of farming systems project activities.
2. Conduct periodic assessments of the project for possible redirection and policy changes.
3. Reviews and approve farm systems packages to be tested in the project site. (i.e., budgetary, manpower, equipment requirements, etc.)
4. Base on the results of the adaptive trials in the projects sites, recommends for dissemination the technology packages most appropriate for the province within the region.
5. Performs such other functions as may be necessary for the efficient operation of the project.
6. Committee Composition includes: MA Regional Director (Chairman), NEDA Regional Executive Director, VICARP Chairman (VISCA President), Project Director, Region VIII Farmer Representative and two members from the national level Ministry of Agriculture.
7. Committee meets monthly or whenever necessary.

Project Director

1. Implements the policies, rules and guidelines approved by the RMC.
2. Exercises day to day administrative and supervisory functions of the project staff (including personnel detailed from other agencies).
3. Select, recruit and obtain the professional service of personnel as deemed necessary for the project, and likewise terminate and/or obtain replacement as necessary.
4. Submits periodic reports and recommendations to the RMC for appropriation.
5. Coordinates with other agencies (public and private) whose operations have an involvement in project activities.
6. Makes visits to and assessments of project site.
7. Performs other functions, as may be required.

Technical Coordinator for Research and Development

1. Assumes a leadership role in formulating the total research

ANNEX E  
(page 4 of 5)

- program for the project to include on campus as well as project site research.
2. Provides technical and operational assistance to the project sites leaders.
  3. Conducts regular field visits to observe and monitor the progress of the research activities.
  4. Coordinates with administrators/research experts from farming system research projects in the country in order to facilitate the exchange of experience and information.
  5. Submits periodic reports and recommendations to the Project Director.
  6. Coordinates the activities of consultant(s) and or contractor(s) providing agricultural technical assistance.
  7. Organizes and coordinates research team at VISCA for the purpose of conducting multi-disciplinary research in support of the project.
  8. Plans and coordinates project training activities.
  9. Performs other duties required.

Senior Agricultural Economist (Farm Management)

Duties:

1. Serve as planner and contractor's principal representative who directs and maintains surveillance over all contractor field activities.
2. Participate in the planning, implementation and management of adaptive research work at the farm level which include farm level surveys, trials and evaluation of improved farming systems as it relates to project methodology, as well as overall planning activities for the MA Regional Office as may directed by the Director.
3. Assist GOP project management in the identification recruitment of short term consultants.
4. Coordinates with appropriate GOP officials and contractor (campus) coordinator in identifying and placing Filipinos in short and long term training programs; courses and study observation outside the Philippines.
5. Insures coordination and balance of project activities in the

Philippines based on his knowledge of host-country conditions, needs, potentials as well as GOP and USAID/Philippines' objectives.

6. Undertakes professional activities which are mutually agreed upon with GOP counterparts.

Qualifications

1. Ph.D. in Agricultural Economics with experience in organizing and carrying out multi-disciplinary research/extension programs in less developed countries. Knowledge of agricultural planning will be extremely useful.
2. Several years of professional agricultural experience in LDC's preferably in micro-level research.

Duration

4 years

Duty Station

Tacloban, Philippines, responsible to the Ministry of Agriculture Director Region VIII (or his designee) for overall project coordination and the President of the Visayas State College of Agriculture (or his designee) for adaptive research technical matters.

**ANNEX F**

**SUPPLEMENTARY FINANCIAL TABLES**

EASTERN VISAYAS FARMING SYSTEMS PROJECT  
 USAID FIVE-YEAR BUDGET SUMMARY  
 IN U.S. DOLLARS <sup>1/</sup>

Y E A R	PROJECT DIRECTOR'S OFFICE	TECH COOR FOR RESEARCH	TECH TRAINING SUPPORT	SRMU	PARTICIPANT TRAINING SUPPORT	LT & ST TECH. ASST.	TOTAL
AID Grant							
1						236,555	236,555
2						251,767	251,767
3						360,217	360,217
4						292,433	292,433
5						202,407	202,407
Total AID Grant						1,343,379	1,343,379
AID Loan							
1	87,497	229,043	271,309	43,332	166,980	-	798,161
2	22,074	157,554	909	17,689	174,636	-	372,862
3	25,377	13,823	1,044	20,337	105,405	-	165,986
4	29,182	15,895	1,200	23,385	17,315	-	86,977
5	33,553	18,277	1,381	26,888	13,273	-	93,372
Total AID Loan	197,683	434,592	275,843	131,631	477,609	-	1,517,358
Total Estd. AID Life of Project Support	197,683	434,592	275,843	131,631	477,609	1,343,379	2,860,737

<sup>1/</sup> Includes amounts for contingency and inflation.

EASTERN VISAYAS FARMING SYSTEMS PROJECT  
 GOP FIVE-YEAR BUDGET SUMMARY  
 IN PHILIPPINE PESOS <sup>1/</sup>

YEAR	PROJECT DIRECTOR'S OFFICE	TECH COOR FOR RESEARCH	TECH TRAINING SUPPORT	SRMU	PARTICIPANT TRAINING SUPPORT	LT & ST TECH. ASST.	TOTAL
1	642,620	817,696	614,892	1,301,078	521,180	1,190,153	5,087,619
2	412,432	727,213	212,590	966,785	1,087,110	264,120	3,670,250
3	474,156	756,393	244,407	1,111,474	1,330,115	320,653	4,233,198
4	545,234	865,177	281,043	1,855,256	921,548	290,501	4,758,759
5	626,909	994,782	323,144	1,469,543	360,572	134,903	3,909,853
Total GOP Direct Budget Contributions	2,701,351	4,157,261	1,676,076	6,704,136	4,220,525	2,200,300	21,659,679

<sup>1/</sup> Includes amounts for contingency and inflation.

45

TABLE 1 (1 of 2)

**EASTERN VISAYAS FARMING SYSTEMS PROJECT**  
**SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR**  
**(In U.S. Dollars)**

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources
		Grant	Loan	Total	VISCA	FA	REDA	
<b>Year 1</b>								
I.	Project Director's Office Support	-	87,497	87,497	-	83,457	-	170,954
II.	Tech Coor for Res & Dev Off Support	-	229,043	229,043	106,194	-	-	335,237
III.	Tech Training Office Support	-	271,309	271,309	79,856	-	-	351,165
IV.	SRMU'S Support	-	43,332	43,332	-	168,971	-	212,303
V.	Participant Training Support	-	166,980	166,980	13,799	18,400	35,486	234,665
VI.	Long Term & Short Term Staff Support	236,555	-	236,555	-	53,037	101,529	391,121
	<b>Total</b>	<b>236,555</b>	<b>798,161</b>	<b>1,034,716</b>	<b>199,849</b>	<b>323,865</b>	<b>137,015</b>	<b>1,695,445</b>
<b>Year 2</b>								
I.	Project Director's Office Support	-	22,074	22,074	-	53,562	-	75,636
II.	Tech Coor for Res & Dev Off Support	-	157,554	157,554	94,443	-	-	251,997
III.	Tech Training Office Support	-	909	909	27,609	-	-	281,518
IV.	SRMU'S Support	-	17,689	17,689	-	125,556	-	143,245
V.	Participant Training Support	-	174,636	174,636	47,061	57,834	36,288	315,819
VI.	Long Term & Short Term Staff Support	251,767	-	251,767	-	30,899	3,402	286,068
	<b>Total</b>	<b>251,767</b>	<b>372,862</b>	<b>624,629</b>	<b>169,113</b>	<b>267,851</b>	<b>39,690</b>	<b>1,101,283</b>
<b>Year 3</b>								
I.	Project Director's Office Support	-	25,377	25,377	-	61,578	-	86,955
II.	Tech Coor for Res & Dev Off Support	-	13,823	13,823	97,713	-	-	111,536
III.	Tech Training Office Support	-	1,044	1,044	31,741	-	-	321,785
IV.	SRMU'S Support	-	20,337	20,337	-	144,346	-	164,683
V.	Participant Training Support	-	105,405	105,405	59,753	84,307	28,681	278,146
VI.	Long Term & Short Term Staff Support	360,217	-	360,217	-	37,732	3,912	401,861
	<b>Total</b>	<b>360,217</b>	<b>165,986</b>	<b>526,203</b>	<b>189,207</b>	<b>327,963</b>	<b>32,593</b>	<b>1,075,966</b>

TABLE 1 (2 of 2)

**EASTERN VISAYAS FARMING SYSTEMS PROJECT**  
**SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR**  
(In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All
		Grant	Loan	Total	VISCA	RA	NEDA	Total Sources
<b>Year 4</b>								
I.	Project Director's Office Support	-	29,182	29,182	-	70,809	-	99,991
II.	Tech Coor for Res & Dev Off Support	-	15,895	15,895	112,359	-	-	128,254
III.	Tech Training Office Support	-	1,200	1,200	36,499	-	-	37,699
IV.	SRMU'S Support	-	23,385	23,385	-	240,942	-	264,327
V.	Participant Training Support	-	17,315	17,315	27,484	83,203	8,995	136,997
VI.	Long Term & Short Term Staff Support	292,433	-	292,433	-	33,230	4,498	330,161
	<b>Total</b>	<u>292,433</u>	<u>86,977</u>	<u>379,410</u>	<u>176,342</u>	<u>428,184</u>	<u>13,493</u>	<u>997,429</u>
<b>Year 5</b>								
I.	Project Director's Office Support	-	33,553	33,553	-	81,417	-	114,970
II.	Tech Coor for Res & Dev Off Support	-	18,277	18,277	129,192	-	-	147,469
III.	Tech Training Office Support	-	1,381	1,381	41,966	-	-	43,347
IV.	SRMU'S Support	-	26,888	26,888	-	190,849	-	217,737
V.	Participant Training Support	-	13,273	13,273	-	39,932	6,895	60,100
VI.	Long Term & Short Term Staff Support	202,407	-	202,407	-	17,520	-	219,927
	<b>Total</b>	<u>202,407</u>	<u>93,372</u>	<u>295,779</u>	<u>171,158</u>	<u>329,718</u>	<u>6,895</u>	<u>803,550</u>
<b>Year 1-5</b>								
I.	Project Director's Office Support	-	197,683	197,683	-	350,823	-	548,506
II.	Tech Coor for Res & Dev Off Support	-	434,592	434,592	539,901	-	-	974,493
III.	Tech Training Office Support	-	275,843	275,843	217,671	-	-	493,514
IV.	SRMU'S Support	-	131,631	131,631	-	870,664	-	1,002,295
V.	Participant Training Support	-	477,609	477,609	148,097	283,676	116,345	1,025,727
VI.	Long Term & Short Term Staff Support	1,343,379	-	1,343,379	-	172,418	113,341	1,629,138
	<b>Total</b>	<u>1,343,379</u>	<u>1,517,358</u>	<u>2,860,737</u>	<u>905,669</u>	<u>1,677,581</u>	<u>229,686</u>	<u>5,673,673</u>

TABLE 2 ( 1 of 6 )  
EASTERN VISAYAS FARMING PROJECT  
SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
(In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources
		Grant	Loan	Total	VISCA	MA	NEDA	
Year 1								
I. Project Director's Office Support								
A. Program Inputs			15,168	15,168		13,948	13,948	29,116
B. Commodities			54,000	54,000		52,026	52,026	106,026
C. Allowance for inflation			10,375	10,375		9,896	9,896	20,271
D. Allowance for contingency			7,954	7,954		7,587	7,587	15,541
Sub-total			<u>87,497</u>	<u>87,497</u>		<u>83,457</u>	<u>83,457</u>	<u>170,954</u>
Tech Coor for Res. & Dev. Off Support								
A. Program Inputs			8,262	8,262	56,325		56,325	64,587
B. Commodities			172,800	172,800	27,623		27,623	200,423
C. Allowance for inflation			27,159	27,159	12,592		12,592	39,751
D. Allowance for contingency			20,822	20,822	9,654		9,654	30,476
Sub-total			<u>229,043</u>	<u>229,043</u>	<u>106,194</u>		<u>106,194</u>	<u>335,237</u>
III. Tech Training Office Support								
A. Program Inputs			624	624	50,140		50,140	50,764
B. Commodities			213,850	213,850	12,987		12,987	226,837
C. Allowance for inflation			32,171	32,171	9,469		9,469	41,640
D. Allowance for contingency			24,664	24,664	7,260		7,260	31,924
Sub-total			<u>271,309</u>	<u>271,309</u>	<u>79,856</u>		<u>79,856</u>	<u>351,165</u>
IV. SRMU'S Support								
A. Program Inputs			12,155	12,155		86,275	86,275	98,430
B. Commodities			22,100	22,100		47,299	47,299	69,399
C. Allowance for inflation			5,138	5,138		20,036	20,036	25,174
D. Allowance for contingency			3,939	3,939		15,361	15,361	19,300
Sub-total			<u>43,332</u>	<u>43,332</u>		<u>168,971</u>	<u>168,971</u>	<u>212,303</u>
V. Participant Training Support								
A. Participants			132,000	132,000	10,909	14,545	28,052	53,506
B. Allowance for inflation			19,800	19,800	1,636	2,182	4,208	8,026
C. Allowance for contingency			15,180	15,180	1,254	1,673	3,226	6,153
Sub-total			<u>166,980</u>	<u>166,980</u>	<u>13,799</u>	<u>18,400</u>	<u>35,486</u>	<u>67,685</u>
VI. Long Term & Short Term Staff Support								
A. Technical Assistance	175,000		175,000	175,000		15,952	15,952	190,952
B. Commodities	12,000		12,000	12,000		25,974	80,260	106,234
C. Allowance for inflation	28,050		28,050	28,050		6,289	12,039	18,328
D. Allowance for contingency	21,505		21,505	21,505		4,822	9,230	14,052
Sub-total	<u>236,555</u>		<u>236,555</u>	<u>236,555</u>		<u>53,037</u>	<u>101,529</u>	<u>154,566</u>
GRAND TOTAL			<u>798,161</u>	<u>1,034,716</u>	<u>199,849</u>	<u>323,865</u>	<u>137,015</u>	<u>660,729</u>
								<u>1,695,445</u>

<sup>1</sup> refers to items other than commodities or construction required to carry out functions of the office.

TABLE 2 (2 of 6)  
 EASTERN VISAYAS FARMING PROJECT  
 SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
 (In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources	
		Grant	Loan	Total	VISCA	HA	NEDA		
Year <u>2</u>									
I. Project Director's Office Support									
	A. Program Inputs		15,168	15,168		13,948	13,948	29,116	
	B. Commodities					22,857	22,857	22,857	
	C. Allowance for inflation		4,899	4,899		11,888	11,888	16,787	
	D. Allowance for contingency		2,007	2,007		4,869	4,869	6,876	
	Sub-total		<u>22,074</u>	<u>22,074</u>		<u>53,562</u>	<u>53,562</u>	<u>75,636</u>	
II. Tech Coor for Res. & Dev. Off Support									
	A. Program Inputs		8,262	8,262	48,532		48,532	56,794	
	B. Commodities		100,000	100,000	16,364		16,364	116,364	
	C. Allowance for inflation		34,969	34,969	20,961		20,961	55,925	
	D. Allowance for contingency		14,323	14,323	8,586		8,586	22,909	
	Sub-total		<u>157,554</u>	<u>157,554</u>	<u>94,443</u>		<u>94,443</u>	<u>251,997</u>	
III. Tech Training Office Support									
	A. Program Inputs		624	624	5,984		5,984	6,608	
	B. Commodities				12,987		12,987	12,987	
	C. Allowance for inflation		202	202	6,128		6,128	6,330	
	D. Allowance for contingency		83	83	2,510		2,510	2,593	
	Sub-total		<u>909</u>	<u>909</u>	<u>27,609</u>		<u>27,609</u>	<u>28,518</u>	
IV. SRMU'S Support									
	A. Program Inputs		12,155	12,155		86,275	86,275	98,430	
	B. Commodities								
	C. Allowance for inflation		3,926	3,926		27,867	27,867	31,793	
	D. Allowance for contingency		1,608	1,608		11,414	11,414	13,022	
	Sub-total		<u>17,689</u>	<u>17,689</u>		<u>125,556</u>	<u>125,556</u>	<u>143,245</u>	
V. Participant Training Support									
	A. Participants		120,000	120,000	32,338	39,740	24,935	97,013	
	B. Allowance for inflation		38,760	38,760	10,445	12,836	8,054	31,335	
	C. Allowance for contingency		15,876	15,876	4,278	5,258	3,299	12,835	
	Sub-total		<u>174,636</u>	<u>174,636</u>	<u>47,061</u>	<u>57,834</u>	<u>36,288</u>	<u>141,183</u>	
VI. Long Term & Short Term Staff Support									
	A. Technical Assistance	173,000		173,000		21,232		194,232	
	B. Commodities						2,338	2,338	
	C. Allowance for inflation	55,879		55,879	6,858		755	7,613	
	D. Allowance for contingency	22,888		22,888	2,809		309	3,118	
	Sub-total	<u>251,767</u>		<u>251,767</u>	<u>30,899</u>	<u>3,402</u>	<u>3,402</u>	<u>34,301</u>	
GRAND TOTAL		<u>251,767</u>	<u>372,862</u>	<u>624,629</u>	<u>169,113</u>	<u>267,851</u>	<u>39,690</u>	<u>476,654</u>	<u>1,101,283</u>

TABLE 2 (3 of 6)  
 EASTERN VISAYAS FARMING PROJECT  
 SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
 (In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources	
		Grant	Loan	Total	VISCA	MA	NEDA		
Year <u>3</u>									
I. Project Director's Office Support									
A. Program Inputs			15,168	15,168		13,948	13,948	29,116	
B. Commodities			-	-		22,857	22,857	22,857	
C. Allowance for inflation			7,902	7,902		19,175	19,175	27,077	
D. Allowance for contingency			2,307	2,307		5,598	5,598	7,905	
Sub-total			<u>25,377</u>	<u>25,377</u>		<u>61,578</u>	<u>61,578</u>	<u>86,955</u>	
II. Tech Coor for Res. & Dev. Off Support									
A. Program Inputs			8,262	8,262	48,532		48,532	56,794	
B. Commodities			-	-	9,870		9,870	9,870	
C. Allowance for inflation			4,304	4,304	30,428		30,428	34,732	
D. Allowance for contingency			1,257	1,257	8,883		8,883	10,140	
Sub-total			<u>13,823</u>	<u>13,823</u>	<u>97,713</u>		<u>97,713</u>	<u>111,536</u>	
III. Tech Training Office Support									
A. Program Inputs			624	624	5,984		5,984	6,608	
B. Commodities			-	-	12,987		12,987	12,987	
C. Allowance for inflation			325	325	9,884		9,884	10,209	
D. Allowance for contingency			95	95	2,886		2,886	2,981	
Sub-total			<u>1,044</u>	<u>1,044</u>	<u>31,741</u>		<u>31,741</u>	<u>32,785</u>	
IV. SRMU'S Support									
A. Program Inputs			12,155	12,155		86,275	86,275	98,430	
B. Commodities			-	-		-	-	-	
C. Allowance for inflation			6,333	6,333		44,949	44,949	51,282	
D. Allowance for contingency			1,849	1,849		13,122	13,122	14,971	
Sub-total			<u>20,337</u>	<u>20,337</u>		<u>144,346</u>	<u>144,346</u>	<u>164,683</u>	
V. Participant Training Support									
A. Participants			63,000	63,000	35,714	50,390	17,143	166,247	
B. Allowance for inflation			32,823	32,823	18,607	26,253	8,931	86,614	
C. Allowance for contingency			9,582	9,582	5,432	7,664	2,607	25,285	
Sub-total			<u>105,405</u>	<u>105,405</u>	<u>59,753</u>	<u>84,307</u>	<u>28,681</u>	<u>278,146</u>	
VI. Long Term & Short Term Staff Support									
A. Technical Assistance		215,500		215,500		22,552	-	238,052	
B. Commodities		-		-		-	2,338	2,338	
C. Allowance for inflation		112,015		112,015		11,750	1,218	124,983	
D. Allowance for contingency		32,702		32,702		3,430	356	36,488	
Sub-total		<u>360,217</u>		<u>360,217</u>		<u>37,732</u>	<u>3,912</u>	<u>401,861</u>	
GRAND TOTAL		<u>360,217</u>	<u>165,986</u>	<u>526,203</u>	<u>189,207</u>	<u>327,963</u>	<u>32,593</u>	<u>549,763</u>	<u>1,075,966</u>

TABLE 2 (4 of 6)  
EASTERN VISAYAS FARMING PROJECT  
SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
(In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources	
		Grant	Loan	Total	VISCA	MA	NEDA		
Year 4									
I.	Project Director's Office Support								
	A. Program Inputs		15,168	15,168		13,948	13,948	29,116	
	B. Commodities		-	-		22,857	22,857	22,857	
	Allowance for inflation		11,361	11,361		27,567	27,567	38,928	
	D. Allowance for contingency		2,653	2,653		6,437	6,437	9,090	
	Sub-total		<u>29,182</u>	<u>29,182</u>		<u>70,809</u>	<u>70,809</u>	<u>99,991</u>	
II.	Tech Coor for Res. & Dev. Off Support								
	A. Program Inputs		8,262	8,262	48,532		48,532	56,794	
	B. Commodities		-	-	9,870		9,870	9,870	
	C. Allowance for inflation		6,188	6,188	43,743		43,743	49,931	
	D. Allowance for contingency		1,445	1,445	10,214		10,214	11,659	
	Sub-total		<u>15,895</u>	<u>15,895</u>	<u>112,359</u>		<u>112,359</u>	<u>128,254</u>	
III.	Tech Training Office Support								
	A. Program Inputs		624	624	5,984		5,984	6,608	
	B. Commodities		-	-	12,987		12,987	12,987	
	C. Allowance for inflation		467	467	14,210		14,210	14,677	
	D. Allowance for contingency		109	109	3,318		3,318	3,427	
	Sub-total		<u>1,200</u>	<u>1,200</u>	<u>36,499</u>		<u>36,499</u>	<u>37,699</u>	
IV.	SRMU'S Support								
	A. Program Inputs		12,155	12,155		125,236	125,236	137,391	
	B. Commodities		-	-		-	-	-	
	C. Allowance for inflation		9,104	9,104		93,802	93,802	102,906	
	D. Allowance for contingency		2,126	2,126		21,904	21,904	24,030	
	Sub-total		<u>23,385</u>	<u>23,385</u>		<u>240,942</u>	<u>240,942</u>	<u>264,327</u>	
V.	Participant Training Support								
	A. Participants		9,000	9,000	14,286	43,247	4,675	62,208	71,208
	B. Allowance for inflation		6,741	6,741	10,700	32,392	3,502	46,594	53,335
	C. Allowance for contingency		1,574	1,574	2,498	7,564	818	10,880	12,454
	Sub-total		<u>17,315</u>	<u>17,315</u>	<u>27,484</u>	<u>83,203</u>	<u>8,995</u>	<u>119,682</u>	<u>136,997</u>
vi.	Long Term & Short Term Staff Support								
	A. Technical Assistance	152,000		152,000		17,272	-	17,272	169,272
	B. Commodities	-		-		-	2,338	2,338	2,338
	C. Allowance for inflation	113,848		113,848		12,937	1,751	14,688	128,536
	D. Allowance for contingency	26,585		26,585		3,021	409	3,430	30,015
	Sub-total	<u>292,433</u>		<u>292,433</u>		<u>33,230</u>	<u>4,498</u>	<u>37,728</u>	<u>330,161</u>
	GRAND TOTAL	<u>292,433</u>	<u>86,977</u>	<u>379,410</u>	<u>176,342</u>	<u>428,184</u>	<u>13,493</u>	<u>618,019</u>	<u>997,429</u>

TABLE 2 (5 of 6)  
 EASTERN VISAYAS FARMING PROJECT  
 SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
 (In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources	
		Grant	Loan	Total	VISCA	MA	NEDA		
Year <u>5</u>									
I. Project Director's Office Support									
A. Program Inputs			15,168	15,168		13,948	13,948	29,116	
B. Commodities						22,857	22,857	22,857	
C. Allowance for inflation			15,335	15,335		37,210	37,210	52,545	
D. Allowance for contingency			3,050	3,050		7,402	7,402	10,452	
Sub-total			<u>33,553</u>	<u>33,553</u>		<u>81,417</u>	<u>81,417</u>	<u>114,970</u>	
II. Tech Coor for Res. & Dev. Off Support									
A. Program Inputs			8,262	8,262	48,532		48,532	56,794	
B. Commodities					9,870		9,870	9,870	
C. Allowance for inflation			8,353	8,353	59,045		59,045	67,398	
D. Allowance for contingency			1,662	1,662	11,745		11,745	13,407	
Sub-total			<u>18,277</u>	<u>18,277</u>	<u>129,192</u>		<u>129,192</u>	<u>147,469</u>	
III. Tech Training Office Support									
A. Program Inputs			624	624	5,984		5,984	6,608	
B. Commodities					12,987		12,987	12,987	
C. Allowance for inflation			631	631	19,180		19,180	19,811	
D. Allowance for contingency			126	126	3,815		3,815	3,941	
Sub-total			<u>1,381</u>	<u>1,381</u>	<u>41,966</u>		<u>41,966</u>	<u>43,347</u>	
IV. SRMU'S Support									
A. Program Inputs			12,155	12,155		86,275	86,275	98,430	
B. Commodities									
C. Allowance for inflation			12,289	12,289		87,224	87,224	99,513	
D. Allowance for contingency			2,444	2,444		17,350	17,350	19,794	
Sub-total			<u>26,888</u>	<u>26,888</u>		<u>190,849</u>	<u>190,849</u>	<u>217,737</u>	
V. Participant Training Support									
A. Participants			6,000	6,000		18,052	3,117	21,169	
B. Allowance for inflation			6,066	6,066		18,250	3,151	21,401	
C. Allowance for contingency			1,207	1,207		3,630	627	4,257	
Sub-total			<u>13,273</u>	<u>13,273</u>		<u>39,932</u>	<u>6,895</u>	<u>46,827</u>	
VI. Long Term & Short Term Staff Support									
A. Technical Assistance		91,500		91,500		7,920	7,920	99,420	
B. Commodities									
C. Allowance for inflation		92,506		92,506		8,007	8,007	100,513	
D. Allowance for contingency		18,401		18,401		1,593	1,593	19,994	
Sub-total		<u>202,407</u>		<u>202,407</u>		<u>17,520</u>	<u>17,520</u>	<u>219,927</u>	
<b>GRAND TOTAL</b>		<u>202,407</u>	<u>93,372</u>	<u>295,779</u>	<u>171,158</u>	<u>329,718</u>	<u>6,895</u>	<u>507,771</u>	<u>803,550</u>

TABLE 2 (6 of 6)  
EASTERN VISAYAS FARMING PROJECT  
SUMMARY OF SOURCES OF FUNDS BY OUTPUT AND YEAR  
(In U.S. Dollars)

Year and Output	Source	AID Contribution			GOP Monetary Contribution			Total All Sources	
		Grant	Loan	Total	VISCA	MA	NEDA		
Years 1 to 5									
I. Project Director's Office Support									
A. Program Inputs		75,840		75,840		69,740		145,580	
B. Commodities		54,000		54,000		143,454		197,454	
C. Allowance for inflation		49,872		49,872		105,736		155,608	
D. Allowance for contingency		17,971		17,971		31,893		49,864	
Sub-total		197,683		197,683		350,823		548,506	
II. Tech Coord for Res. & Dev. Off Support									
A. Program Inputs		41,310		41,310	250,453			291,763	
B. Commodities		272,800		272,800	73,597			346,397	
C. Allowance for inflation		80,973		80,973	166,769			247,742	
D. Allowance for contingency		39,509		39,509	49,082			88,591	
Sub-total		434,592		434,592	539,901			974,493	
III. Tech Training Office Support									
A. Program Inputs		3,120		3,120	74,076			77,196	
B. Commodities		213,850		213,850	64,935			278,785	
C. Allowance for inflation		33,796		33,796	58,871			92,667	
D. Allowance for contingency		25,077		25,077	19,789			44,866	
Sub-total		275,843		275,843	217,671			493,514	
IV. SRMU's Support									
A. Program Inputs		60,775		60,775		470,336		531,111	
B. Commodities		22,100		22,100		47,299		69,399	
C. Allowance for inflation		36,790		36,790		273,878		310,668	
D. Allowance for contingency		11,966		11,966		79,151		91,117	
Sub-total		131,631		131,631		870,664		1,002,295	
V. Participant Training Support									
A. Participants		330,000		330,000	93,247	165,974	77,922	667,143	
B. Allowance for inflation		104,190		104,190	41,388	91,913	27,846	265,337	
C. Allowance for contingency		43,419		43,419	13,462	25,789	10,577	93,247	
Sub-total		477,609		477,609	148,097	283,676	116,345	1,025,727	
VI. Long Term & Short Term Staff Support									
A. Technical Assistance	807,000		807,000		84,928			891,928	
B. Commodities	12,000		12,000		25,974	87,274	113,248	125,248	
C. Allowance for inflation	402,298		402,298		45,841	15,763	61,604	463,902	
D. Allowance for contingency	122,081		122,081		15,675	10,304	25,979	148,060	
Sub-total	1,343,379		1,343,379		172,418	113,341	285,759	1,629,138	
<b>GRAND TOTAL</b>		<b>1,343,379</b>	<b>1,517,358</b>	<b>2,860,737</b>	<b>905,669</b>	<b>1,677,581</b>	<b>229,886</b>	<b>2,812,936</b>	<b>3,673,673</b>

**ANNEX G**

**PROCUREMENT PLAN AND EQUIPMENT LIST**

**PROCUREMENT PLAN AND EQUIPMENT LIST**

**A. Responsible Agency:**

All commodity procurements (Equipment) for this project will be the responsibility of the Ministry of Agriculture. The requisite in house ability of the Ministry to successfully procure commodities under AID regulatory guidelines has been demonstrated under several previous loans. Technical assistance and advise in procurement matters will be furnished by the USAID as requested or needed.

**B. Method of Procurement:**

AID Financed offshore procurements will be accomplished in accordance with AID regulations and good commercial practice. All local purchases will be GOP financed. AID will finance only offshore procurement which will be done by formal competitive bidding procedures.

**C. Waivers:**

No commodity procurement waivers are anticipated for project purchases at this time.

**D. Source/Origin of Procurements:**

The authorized source/origin of commodities for this project is the host country and AID Geographic Code 941. Vehicles will be of U.S. source/origin.

**E. Payment Procedures:**

Payment to suppliers of offshore commodities will be provided for by commercial letters of credit or AID direct letters of commitment whichever is most feasible and advantageous.

**F. Delivery:**

All AID financed commodities for the project will be shipped on a CIF Port of Manila bases. Suppliers will be required to obtain all risk marine insurance at 120% C&F value of commodity and similar coverage for inland freight. Responsibility for port clearance, payment of import duties (if any) and inland transportation in the Republic of the Philippines rests with the Ministry of Agriculture. Receiving reports on offshore commodities will be furnished to USAID by the Ministry.

**G. Marking:**

The Ministry of Agriculture is aware of AID marking requirements and will assure that all AID financed commodities are properly marked. The suppliers of offshore commodities will be required to mark them prior to shipment.

Equipment List (by Project Component):

OFFSHORE AID FINANCED			LOCALLY PURCHASED GOP FINANCED		
QTY	ITEM	ESTIMATED COST (\$)	QTY	ITEM	ESTIMATED COST (P)
<b>I. MINISTRY OF AGRICULTURE REGION VIII (PROJECT DIRECTOR'S OFFICE)</b>					
1	manual typewriter	\$ 500	2	filing cabinets	P 1,600
1	hand mimeo machine	3,000	3	office tables	9,000
1	transceiver	3,000	3	office chairs	1,500
3	four-wheel vehicle	30,000	1	conference table	5,000
1	flat bed truck, 1½ ton	15,000	12	conference chairs	6,000
1	cold storage equipt.	2,000	3	electric fans	1,500
<b>II. VISAYAS STATE COLLEGE OF AGRICULTURE (ViSCA)</b>					
<b>A. Technical Coordinator for Research and Development Office</b>					
2	manual typewriters	\$ 1,000	5	office tables	P 15,000
2	desk calculators	1,000	1	conference table	5,000
1	four-wheel vehicle	10,000	20	conference chairs	10,000
1	copying machine	6,000	4	filing cabinets	3,200
1	hand mimeo machine	3,000	4	storage cabinets	2,000
1	stencil duplicator (scanner)	2,000	1	camera	3,000
1	lettering set	300	5	electric fans	2,500
1	transceiver	3,000	1	hand tractor with attachments	30,000
1	lab equipt. (plant & soil analysis, 2 Oven, glassware)	35,000	1	thresher	8,000
1	corn sheller	300	1	blower	2,000
4	field scales	1,200	1	dye	6,000
1	moisture tester	3,000			
<b>B. TECHNICAL TRAINING/OFFICE</b>					
<b>a. Office Equipment</b>					
1	canopy pick-up truck	\$ 10,000			
1	four-wheel drive vehicle	10,000			
1	programmable desk calculator w/tape	1,000			
4	desk calculators w/tape	2,000			
<b>b. Training Equipment</b>					
2	slide projectors with synchronizer	\$ 1,000			
1	overhead projector	250			
2	screens	200			
2	tape recorders, portable	200			
1	sound system (amplifier microphone, & speakers)	2,000			
2	megaphones	200			
1	transceiver	3,000			

III. SITE RESEARCH MANAGEMENT UNIT (SRMU'S)						
6	°	radio transceivers	\$ 18,000	6	hand calculators	₱ 1,800
6	'	megaphones	6,000	6	cameras	9,000
12	'	balances (6 field and		12	sprayers	7,200
	'	6 platform)	2,000	18	office tables	36,000
6	'	steel tapes	1,500	6	filing cabinets	4,800
	'			18	chairs	5,400

Total Equipment	178,750	175,500
Add Books & Periodicals		100,000
Procurement	<u>200,000</u>	
Sub-Total	378,750	<u>275,500</u>
15% Escalation	56,812	41,325
10% Contingency	43,556	31,682
Estimate Total Cost	<u><u>479,118</u></u>	<u><u>348,507</u></u>

**I. Book and Educational Materials Procurement:**

In addition to the items listed above, the project will procure approximately \$200,000 worth of books, periodicals and teaching materials. These AID financed items will be procured thru a PIO/C with AID/W designating a book contractor for the purchase of the needed materials.

**J. Procurement Schedule:**

Preliminary work on procurement of supplies will occur concurrently with the Ministry of Agriculture's efforts to meet any conditions precedent. Target date numbers below refer to the number of days cited after conditions precedent have been met and disbursement is authorized.

Target Date	Action To Be Taken
+ 60	IFB is submitted to USAID for review and approval
+ 90	IFB is issued
+100	Book list is submitted to USAID for review and approval
+150	PIO/C for books is issued and local procurement lists and market canvasses are submitted to USAID for approval
+170	Bid opening on IFB
+200	Local procurement of supplies begins. (GOP Financed) Bid awards on IFB are made
+250	Local procurement completed
+260 - 360	Books and offshore commodities arrive and are transported to project site.

**ANNEX H**

**PARTICIPANT TRAINING PLAN BY YEAR AND AGENCY**

**PARTICIPANT TRAINING PLAN BY YEAR AND AGENCY**

**DISTRIBUTION OF PARTICIPANTS TO TRAINING PROGRAM BY YEAR AND BY AGENCY.**

Training Program	Year 1		Year 2		Year 3		Year 4		Year 5		Total		Grand
	VISCA	MA	VISCA	MA	VISCA	MA	VISCA	MA	VISCA	MA	VISCA	MA	Total
1. Doctoral Studies	3	2	2	2	-	1	-	-	-	-	5	5	10
2. Masteral Studies	3	4	-	3	-	3	-	3	-	-	3	13	16
3. Faculty Fellows	3	-	4	-	3	-	-	-	-	-	10	-	10
4. Non-Degree Trainings	5	5	4	4	4	3	-	3	-	2	13	17	30
<b>Total</b>	<b>15</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>6</b>	<b>7</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>3</b>	<b>31</b>	<b>35</b>	<b>66</b>

**VISCA** - Visayas State College of Agriculture, Baybay, Leyte

**MA** - Ministry of Agriculture, Region VIII

Specific Fields or Disciplines to be Attended by Participants to Training Program

I. Degree Programs (36 slots)

Implementing Agency

A. Doctoral Programs - 10 slots  
(1 year in US and 2 years in the Phil.)

1. Plant Breeding	VISCA
2. Land Classification and Land Use	VISCA
3. Agronomy	VISCA
4. Horticulture	VISCA
5. Animal Science	VISCA
6 to 10 Agricultural Extension (5 slots)	MA

B. Masteral Programs - 16 slots  
(2 years in local universities)

1. Seed Technology	VISCA
2. Soil Fertility	VISCA
3. Ecology	VISCA
4. Agronomy	MA
5. Home Extension/Home Econ.	MA
6. Rural Sociology	MA
7. Agri-Business	MA
8. Soils Management	MA
9. Animal Husbandry	MA
10. Development Communication	MA
11.) Agricultural Extension (2 slots)	MA
12.)	
13. Agricultural Engineering	MA
14. Veterinary Medicine	MA
15. Statistics/Ag. Econ.	MA
16. Cooperatives	Ma

II. Faculty Fellows - 10 slots  
(6 months duration)

1. Cropping Systems	VISCA
2. Post-Harvest Technology	VISCA
3. Plant Resistance to Insect Pests	VISCA
4. Virology	VISCA
5. Animal Nutrition	VISCA
6. Duck Breeding	VISCA
7. Cooperative Development	VISCA
8. Ag Extension	VISCA
9. Soil Fertility	VISCA
10. Plant Breeding for Drought and Shake Tolerance	VISCA

III. Non-Degree Trainings - 30 slots  
(6 weeks duration)

1. Ag Extension	VISCA
2. Rural Organizations	VISCA

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3. Research Management	VISCA
4. Cooperative Development	VISCA
5.) Farming Systems (2 slots)	VISCA
6.)	
7. Dairy Goat Husbandry	VISCA
8. Feed Mills Operation and Management	VISCA
9. Marketing	VISCA
10. Radio Programming and Broadcasting	VISCA
11. Soil Fertility	VISCA
12. Water Resource Utilization	VISCA
13. Instrumentation and Maintenance of Laboratory Equipment	VISCA
14. Poultry Management	MA
15. Swine Raising and Management	MA
16. Cattle Raising and Management	MA
17. Goat Raising and Management	MA
18. Rice Production	MA
19. Corn Production	MA
20. Vegetable Production, Processing, Utilization and Marketing	MA
21. Fruit/Orchard Management	MA
22. Root Crops	MA
23. Legumes and Feed Grains	MA
24. Water Management	MA
25. Rice-Fish Culture	MA
26. Fertilizer and Pesticide	MA
27. Development Communication	MA
28. Multiple Cropping	MA
29. Extension Methodology/Extension Delivery System	MA
30. Attitudinal and Behavioral Training	MA

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**ANNEX I**

**TECHNICAL ASSISTANCE REQUIREMENTS**

**TECHNICAL ASSISTANCE REQUIREMENTS (ILLUSTRATIVE)**

**A. TITLE XII INSTITUTION**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
<b>1. <u>Resident Long Term Staff (mm)</u></b>						
Farm Management/Agricultural Economics	12	12	12	12	-	48 (mm)
<b>2. <u>Short Term Staff (mm)</u></b>						
Ag Econ/Mktg./Agri-Business	5	4	4	2	1	16
Agronomy	1	1	-	-	-	2
Extension/Communication	-	2	3	3	2	10
Ag Planning/Management	5	3	3	1	1	13
Animal Science	-	1	2	1	-	4
Management Info. specialist	1	1	1	-	-	<u>3</u>
<b>3. <u>Home Office Support</u></b>						48
Campus Coordinator	2	2	2	2	2	10 mm
<b>B. <u>EVALUATION SERVICES</u></b>			1½		1½	3 mm
<b>C. <u>INFRASTRUCTURE/AG SUPPORT SERVICE</u></b>	3 <sup>1/</sup>		2½		2½	8 mm

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(page 1 of 1)

**Note:** Salary, benefits, overhead, international travel and other direct costs will be foreign exchange costs and dollar funded. Local costs which include travel, per diem, housing and educational allowance, etc., will be covered by GOP budgetary support. For planning purposes \$75,000/year is being budgeted for long-term TA and \$7,000/month for short-term TA. Local costs for long-term is estimated at \$45,000 per year and \$4,000/month for short-term TA. Item VII and VIII are budgeted at \$10,000/mm and include per diem and in-country travel.

1/ 3 mm in year 1 to be used for Baseline Study Design.

**ANNEX J**

**STATUTORY CHECKLISTS  
(COUNTRY, PROJECT AND SITE)**

STATUTORY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Economic Support Fund.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? Yes
  
2. FAA Sec. 481. Has it been determined that the government of the recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully? No
  
3. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not dominated or controlled by the international Communist movement? Yes
  
4. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government? a. No  
b. No
  
5. FAA Sec. 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect No

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?

6. FAA Sec. 620(a), 620(f), 620D; FY80 App. Act. Sec. (511, 512 and 513). Is recipient country a Communist country? Will assistance be provided to Angola, Cambodia, Cuba, Laos or Vietnam? Will assistance be provided to Afghanistan or Mozambique without a waiver? No
  
7. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? a. No  
b. No
  
8. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent the damage or destruction, by mob action, of U.S. property? No
  
9. FAA Sec. 620(l). If the country has failed to institute the investment guarantee program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? N/A
  
10. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, N/A
  - a. has any deduction required by the Fishermen's Protective Act been made?

- b. has complete denial of assistance been considered by AID Administrator?
11. FAA Sec. 620; FY 80 App. Act Sec. (518).
- a. Is the government of the recipient country in default for more than six months on interest or principal of any AID loan to the country? a. No
- b. Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds? b. No
12. FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems? (An affirmative answer may refer to the record of the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of 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.) Yes
13. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? No
14. 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 AID Administrator in determining the current AID Operational Year Budget? Current

15. FAA Sec. 620A, FY 80 App. Act Sec. (521). No to both  
Has the country granted sanctuary from proscription to any individual or group which has committed an act of international terrorism? Has the country granted sanctuary from prosecution to any individual or group which has committed a war crime?
16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there is to carry out economic development program under FAA? No
17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977, although not a "nuclear-weapon State" under the nonproliferation treaty? No to both

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria.

- a. FAA Sec. 102(b)(4). Have criteria been established and taken into account to assess commitment progress of country in effectively involving the poor in development, on such indexes as: (1) increase in agricultural, (2) reduced infant mortality, (3) control of population growth, (4) equality of income distribution, (5) reduction of unemployment, and (6) increased literacy? Yes to all
- b. FAA Sec. 104(d)(1); IDC Act of 1979. If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families through modification of economic and social conditions supportive of the desire for large families in programs such as education in and out of Yes

school, nutrition, disease control, maternal and child health services, agricultural production, rural development, assistance to urban poor and through community-based development programs which give recognition to people motivated to limit the size of their families?

PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects with FAA funds and project criteria applicable to individual funding sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Economic Support Fund.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? Yes  
HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT? Yes

A. GENERAL CRITERIA FOR PROJECT

1. FY 80 App. Act Unnumbered; FAA Sec. 634A; Sec. 653(b). (a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure)?
  - a. Via FY 1982 Congressional Presentation, Annex II, p. 105.
  - b. Yes
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and 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 further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

N/A

4. FAA Sec. 611(b); FY 80 App. Act Sec. (501). N/A  
If for water or water-related land resource construction, has project met the standards and criteria as per the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973?
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project? N/A
6. FAA Sec. 209. Is project susceptible of 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 whether project 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. N/A
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). Since some commodities will be purchased in the U.S. under the project, to a limited degree U.S. private trade will be arranged. Indirectly, as these upland farmers become more market-conscious, their spending habits may result in stimulated exports of U.S. materials and equipment.

9. FAA Sec. 612(b); Sec. 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 to meet the cost of contractual and other services.
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. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? Yes
12. FY 80 App. 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? No

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria.

- a. FAA Sec. 102(b); 111; 113; 281a.  
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, spreading investment out 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 the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and

urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (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?

d. Implementing agencies will conduct training that spill over into family activities. Women are involved in a number of senior positions within the Ministry of Agriculture and VISCA.

e. N/A

b. FAA Sec. 103, 103A, 104, 105, 106, 107.

Is assistance being made available: (include only applicable paragraph which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source).

(1) (103) for agriculture, rural development or nutrition; if so (a) extent to which activity is specifically designed to increase productivity and income of rural poor; (103A) if for agricultural research, full account shall be taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made; (b) extent to which assistance is used in coordination with programs carried out under Sec. 104 to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value, improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people; and (c) extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the

a. The project will provide training directed at improving production and utilization of farmer resources. The combination of increased production and better government services, thru training, should result in increased incomes for the participating farmers. Farmers will participate in decision making process involving nature of research being conducted on his land, trials to be conducted in his field thereby assuring best results for specific local conditions.

b. A significant objective of project is to increase food production which will increase consumption thereby improve nutritional standards of participants.

c. This project is consistent with the GOP's development policy goals of increased production thereby increasing national food reserves. This project, because of its research in nature, will only indirectly impact on size and composition of national reserves.

poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution?

- c. FAA Sec. 107. Is appropriate effort 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
- d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least developed" country)? Yes
- e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"? No
- f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people 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 is designed to find ways to increase farmer productivity through farm systems research. This research draws on the farmers knowledge and experience plus the expertise of a major educational institute, will improve other access and use of new technology. tions, individual farmers may combine their strengths and minimize their weaknesses in an effort to deal with their world on a more equal and competitive basis.

- g. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? Yes

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. The World Bank, IMF and major commercial banks in the international market continue to monitor the Philippines' ability to service its outstanding debt now and projected into the future. The general consensus is that it is still a good credit risk.
- b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? N/A

STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement.

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? Yes
2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him? Yes

3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will commodities be insured in the United States against marine risk with a company or companies authorized to do a marine insurance business in the U.S.? Yes
4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? N/A
5. FAA Sec. 608(a). Will U.S. Government excess property be utilized wherever practicable in lieu of the procurement of new items. Yes
6. FAA Sec. 603. Compliance with requirement in Section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates. Project complies
7. FAA Sec. 621. If technical assistance is financed, to the fullest extent practicable will such assistance, goods and professional and other services from private enterprise, be furnished on a contract basis? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs? Yes  
N/A

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8. International Air Transport. Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available? Yes

9. FY 80 App. Act Sec. (505). Does the contract for procurement contain a provision authorizing the termination of such contract for the convenience of the United States? Any direct U.S. Government procurement contract will so provide.

B. Construction.

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest? Yes

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? Yes

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million? No

C. Other Restrictions.

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? Yes

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A

3. FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes
  
4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, sale, long-term lease, exchange or guaranty of motor vehicles manufactured outside the U.S.? Yes
  
5. Will arrangements preclude use of financing:
  - a. FAA Sec. 104(f). To pay for performance of abortions as a method of family planning or to, motivate or coerce persons to practice abortions; to pay for performance of involuntary sterilization as a method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization? Yes
  
  - b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? Yes
  
  - c. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes
  
  - d. FAA Sec. 662. For CIA activities? Yes
  
  - e. FY 80 App. Act Sec. (504). To pay pensions, etc., for military personnel? Yes
  
  - f. FY 80 App. Act Sec. (506). To pay U.N. assessments? Yes
  
  - g. FY 80 App. Act Sec. (507). To carry out provisions of FAA Section 209(d) (Transfer of FAA funds to multilateral organizations for lending)? Yes

- h. FY 80 App. Act Sec. (511). To finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields? Yes
  
- i. FY 80 App. Act Sec. (515). To be used for publicity or propaganda purposes within U.S. not authorized by Congress? Yes

**ANNEX K**

**ENVIRONMENTAL IMPACT**

ENVIRONMENTAL IMPACT

Initial Environmental Examination

Project Location : Republic of the Philippines  
Project Title : Eastern Visayas Farming Project  
Funding (Fiscal Year and Amount) : FY 82 \$3,000,000  
Life of Project : 5 Years  
IEE Prepared By : John A. Foti, OAD, USAID/Manila  
Lynwood Fiedler, Research Biologist  
FASA TAB-473-1-67.  
Date : October 10, 1980  
Environmental Action Recommended : Negative Determination  
Concurrence :

\_\_\_\_\_  
Anthony M. Schwarzwaldner  
Director

\_\_\_\_\_  
Date

Threshold Decision by Assistant Administrator:

Approval/Disapproval of negative determination recommended on this page of IEE.

APPROVED: \_\_\_\_\_

DISAPPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_

IEE - Eastern Visayas Farming Project

I. Examination of Nature, Scope and Magnitude of Environmental Impact

A. Description of Project

The project focuses its efforts on the development (primarily adaptive research in nature) of rainfed, low cost technologies suited to the needs of the small farmers on the islands of Leyte and Samar.

In response to the lack of adaptable, low cost technologies available to small farmers in rainfed areas, this project's purpose is to establish a mechanism to develop and test dissemination of appropriate rainfed crops and animal farming systems in Region VIII using on-site trials with farmer-cooperators.

AID assistance will be in the form of financial assistance to (1) obtain U.S. technical consultants, (2) purchase of equipment, inputs, vehicles, etc., and (3) provide minimal U.S. non-degree and specialized training in the U.S. during the three-year life of the project.

B. Identification of Evaluation of Environmental Impacts

The nature of this project is such that it is not expected to adversely impact on the nation's environment. Much of the project relates to the adaptive research and development of small farming system in farmer fields. Part of the adaptive research and training activities at VISCA and in farm fields will deal with the safe use of pesticides, fertilizers, and other agricultural chemicals. Proper management practices in

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the use of these chemicals in tropical conditions is an important objective. An essential part of the training of farm technicians, farm managers, and farmers will be on the safe use of agricultural chemicals in terms of application, residues, and environmental contamination.

See attached Impact Identification and Evaluation Form for specific comments.

II. Recommendation for Environmental Action

Recommendation for a threshold decision that the project will not have a significant effect on the environment, and therefore a negative determination is appropriate.

IMPACT IDENTIFICATION AND EVALUATION FORM

<u>Impact Areas and Sub-areas</u>	<u>Impact Identification and Evaluation*</u>
<b>A. LAND USE</b>	
1. Changing the character of the land through:	
a. Increasing the population -----	N
b. Extracting natural resources -----	N
c. Land clearing -----	N
d. Changing soil character -----	N
2. Altering natural defenses -----	N
3. Foreclosing important uses -----	N
4. Jeopardizing man or his works -----	N
5. Other factors	
_____	_____
_____	_____
<b>B. WATER QUALITY</b>	
1. Physical state of water -----	N
2. Chemical and biological states -----	N
3. Ecological balance -----	L-U
4. Other factors	
_____	_____
_____	_____
<b>C. ATMOSPHERIC</b>	
1. Air additives -----	L
2. Air pollution -----	N
3. Noise pollution -----	N
4. Other factors	
_____	_____
_____	_____

\* N - No environmental impact  
 L - Little environmental impact  
 M - Moderate environmental impact

H - High environmental impact  
 U - Unknown environmental impact

IMPACT IDENTIFICATION AND EVALUATION FORM

D. NATURAL RESOURCES

- |  |                              |
|--|------------------------------|
| 1. Diversion, altered use of water -----       | <u>          N          </u> |
| 2. Irreversible, inefficient commitments ----- | <u>          N          </u> |
| 3. Other factors                               |                              |

\_\_\_\_\_  
\_\_\_\_\_

E. CULTURAL

- |  |                              |
|--|------------------------------|
| 1. Altering physical symbols -----       | <u>          N          </u> |
| 2. Dilution of cultural traditions ----- | <u>          U          </u> |
| 3. Other factors                         |                              |

\_\_\_\_\_  
\_\_\_\_\_

F. SOCIO-ECONOMIC

- |  |                                |
|--|--------------------------------|
| 1. Changes in economic/employment patterns ----- | <u>          L-M          </u> |
| 2. Changes in population -----                   | <u>          N          </u>   |
| 3. Changes in cultural patterns -----            | <u>          U          </u>   |
| 4. Other factors                                 |                                |

\_\_\_\_\_  
\_\_\_\_\_

G. HEALTH

- |   |                              |
|---|------------------------------|
| 1. Changing a natural environment -----   | <u>          N          </u> |
| 2. Eliminating an ecosystem element ----- | <u>          U          </u> |
| 3. Other factors                          |                              |

\_\_\_\_\_  
\_\_\_\_\_

G. GENERAL

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. International impacts -----  | <u>          N          </u> |
| 2. Controversial Impacts -----  | <u>          N          </u> |
| 3. Larger program impacts ----- | <u>          N          </u> |
| 4. Other factors                |                              |

\_\_\_\_\_  
\_\_\_\_\_

### Discussion of Impacts

Environmental consequences could result from two sources as a result of the project. The first is the use of pesticides and other agricultural chemicals in experimental and demonstration activities on the campus of VISCA and farmer cooperator fields. Potential results to the environment from these activities are negligible because the amounts used will be extremely small and will be under the supervision of the college staff members who are well trained in the safe use and disposal of these chemicals. The second environmental consideration relates to the impact the project may have on the increased but controlled use of pesticides, fertilizers and other agricultural chemicals by farmers or government agencies. The ultimate impact should be beneficial even though it is possible that activities of the campuses may ultimately result in the use of greater quantities of pesticides, fertilizers, chemicals, etc. than at present.

B.2 Chemical and Biological Status - Pesticide, fertilizer and other agricultural chemical residues in water, silt, etc. at the bottom of bodies of water may be found as a result of agricultural chemicals used to increase production and crop protection. Minimal regulations now exist on the kind and extent of agricultural chemicals used in relation to the potential contamination of water. The proposed activities at the research sites will help identify water contamination problems and help determine which agricultural chemicals are involved and how to eliminate or reduce them. Thus, the potential impact here is positive, through reducing current or preventing future contaminating agricultural practices.

C.1 Air Additives - The use of agricultural chemicals, particularly pesticides applied as sprays or dusts always entail the possibility of drift. The task of the college staffs will be to help determine such drift, the potential for harmful impacts and methods to prevent or reduce these impacts to farmers through training. The overall impact of this project should be to reduce such problems.

F. Socio-Economic Changes - The potential impact of project activities on employment may be both positive and/or negative. New or modified agricultural chemical management technology may be labor intensive, thus creating new jobs. On the other hand, effective and economical use of herbicides may be found which will eliminate the need for expensive hand weeding. The total socio-economic impact depends on a number of unknown factors thus cannot be accurately predicted. However, similar activities in other countries have resulted in improved productivity of farmers and the reduction of crop losses.

ANNEX L

GOP LETTER OF REQUEST



File No. DA-100-15  
Code Address: NEDACHH

September 4, 1981

RECEIVED

SEP 5 1981

US-5/0&R

Mr. Anthony M. Schwarzwaldler  
Director, USAID Mission  
Manila

Dear Mr. Schwarzwaldler,

I refer to USAID letter of 2 September 1981 transmitting copies of the Project Paper on Farming Systems Development Project - Eastern Visayas.

Following our review of the project paper, this Office is pleased to endorse the project proposal and requests for AID Loan assistance in the amount of \$1.6M and grant assistance totalling \$1.4M.

Sincerely yours,

PLACIDO L. MAPA, JR.  
Director-General

DIV	ACT	IMP
DD		✓
S		
P		
PE		
AS		
LA		✓
PO		✓
TD		
SO		
PER		
OSO		
LOG		
CLD		
DAV		
TRV		
GO		
CCU		
ORAD	✓	
HAE		
POP		
PPVC		
IIS		
AO/BA		

PLM:ltc  
11-2