CHEMONICS

PROPOSED PROJECT DESIGN

FARMING SYSTEMS DEVELOPMENT PROJECT - EASTERN VISAYAS

402-0356

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ACRONYMS

BNAS	-	Baybay National Agriculture School
CDSS	-	Country Development Strategy Statement
ESSC	-	Eastern Samar State College
FARMI	-	Farm Resource Management Institute
FRT	-	Field Research Technician
FS	-	Farming Systems
FSDP-EV	-	Farming Systems Development Project-Eastern Visayas
FSE	-	Farming Systems Extension
FSR	-	Farming Systems Research
FSR/E	-	Farming Systems Research and Extension
FTE	-	Farmer Target Environment
GOP	-	Government of Philippines
HIREC	-	Hillyland Integrated Research and Extension Center
IAARD	-	Indonesian Agency for Agricultural Research and Development
IFB	-	Invitation for Bid
IRRI	-	International Rice Reseach Institute
LNAC	-	Leyte National Agricultural College
LRMP	-	Local Resource Management Project
MTT	-	Mobile Training Team
NSIRDP	-	Northern Samar Integrated Rural Development Project
NGO	-	Non-Governmental Ogranization
OURO	-	Office of the Undersecretary for Regional Operations
PDO	-	Project Director's Office
PID	-	Project Identification Document
PIO/C	-	Project Implementation Order/Commodities
PTVT	-	Provincial Technology Verification Team
RDA	-	Regional Department of Agriculture
REDP	-	Rural Enterprise Development Project
RIARS	-	Regional Integrated Agricultural Research System
RKKMAFTI	-	Ruperto K. Kangleon Memorial Agricultural and Fisheries Technical Institute
RRDP-B	-	Rainfed Resource Development Project-Bicol
RTC-RD	-	Regional Training Center for Rural Development
SRMU	-	Site Research Management Unit
SUAN	-	Southeast Asian Agroecology Network
UEP	-	University of Eastern Philippines
USAID	-	United States Agency for International Development
USAID/CDS	-	USAID/Contract Services Division
ViSCA	-	Visayas State College of Agriculture

I. SUMMARY AND RECOMMENDATIONS

A. Costs Total Project Costs Area Fallows

AID Grant	$ 2,009,000
GOP Budgetary Support	$ 1,213,000
Total	$ 3,222,000

B. Purpose

Building on the successful accomplishments of the initial Farming Systems Development Project for Eastern Visayas, the GOP has asked for a second cycle to the project to institutionalize and expand these accomplishments.

For clarity and emphasis, two purposes have been designated for the second cycle of the project. First to identify, adapt and disseminate technologies that are environmentally sustainable and profitable to the target farmers and, second to strengthen and institutionalize the Farming Systems Research and Extension (FSR/E) mechanism for providing rainfed agriculture technologies to the resource conditions found in the hilly areas of Region VIII.

C. Description

Cycle II of the project will provide three (3) years of foreign exchange and local currency support to strengthen and institutionalize the Farming Systems Research and Extension (FSR/E) process for identifying, adapting and disseminating appropriate technologies to upland rainfed farmers in Region VIII.

D. Analyses - Summary Findings

The analyses within the project design conclude that the proposed cycle II of the Farming Systems Development Project - Eastern Visayas is technically, socially, economically, and financially feasible. By building upon the technologies identified and tested during the first six years and strengthening project staff capability to conduct socio-economic analysis, household activity and labor allocation surveys, cycle II of the project is expected to result in demonstratable improvement in the livelihood of upland, resource poor farmers in the region.

E. Recommendations

That the project be approved and that AID assistance be authorized under grant funding so that implementation can begin in FY 88.

BACKGROUND AND DETAILED DESCRIPTION

A. Background

Most agricultural development programs in the Philippines focus on production and marketing of single commodities. Examples of this approach include the MASAGANA 99 and MAISAN 77 programs designed to increase the national production of rice and corn. 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 the 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 systems, often find the single commodity programs irrelevant to their needs since the programs do not consider the varied mix of crops, livestock and non-farm enterprises upon which these people depend for their livelihood. Households in the marginal upland areas often find that economic survival depends on achieving a balanced diversification of crop,livestock, and non-agricultural and off-farm 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 analyses the interaction between the farmer and the resource base he/she has to work with to meet the household's need for food and cash income.

In 1981 USAID initiated the Farming Systems Development Project- Eastern Visayas (FSDP/EV) to establish a mechanism for adapting and disseminating rainfed agricultural technologies to the resource conditions found in Region VIII. This project created within the Regional Department of Agriculture (RDA) a project office and six research sites staffed by six person development teams known as Site Research Management Units (SRMUs). These teams were trained in the basic philosophy and process of the farming systems research and extension (FSR/E) approach and were backstopped in their work by the Visayas State College of Agriculture (ViSCA) which was strengthened by the project to provide support to the project and the Regional Department of Agriculture (RDA).

This project, FSDP-EV cycle II, will build upon the accomplishments of the project and focus on strengthening and expanding the existing technology adaptation and delivery system. The emphasis of the second cycle will be on the extension of technologies to improve the profitability of small farm systems and to institutionalize the process with the Department of Agriculture. This objective is consistent with Government of the Philippines long-range agricultural development strategy and directly supports the farming systems mandate promulgated in Executive Order No. 116.

Executive Order No. 116, signed by President Corazon Aquino on March 12, 1987, ordered a reorganization of the Ministry of Agriculture and Food and declared that the policy of the State shall be "to promote the well-being of farmers (including the share tenants, leaseholders, settlers, fishermen and other rural workers) by providing an environment in which they can increase their income, improve their living conditions and maximize their contributions to the national economy. The order further stipulated that the primary concern of the Ministry shall be "to improve farm income and generate work opportunities for farmers/fishermen and other rural workers." In fulfillment of these objectives E.O. 1167 mandated the "use of a bottom-up self-reliant farm systems approach that will emphasize social justice, equity, productivity and sustainability in the use of agricultural resources."

The proposed cycle II of FSDP-EV is consistent with the 1986 Country Development Strategy Statement (CDSS) which identifies small farmers in rainfed and upland areas as a major poverty group and points to a number of constraints affecting their ability to improve their living conditions. Most significant among these are: use of low-yielding rainfed technology; cost/price conditions that hamper farmers' ability to adopt more productive technology; and the use of inappropriate farming practices in uplands which contribute to severe soil erosion and run-off.

The project targets farmers in upland, rainfed areas of Eastern Visayas and directs its efforts to a systematic attack on these constraints and to the development of strategies to improve the profitability of small farm households, taking explicitly into account their resources, access to markets, cropping patterns, and the variability of agro-climatic zones.

B. Summary of Goal, Purpose, and Outputs

1. The long term goal for cycle II of the project continues essentially unchanged except for word modification to more clearly designate the target farmer. The goal is to improve the livelihood of limited resource farmers on selected

rainfed upland areas of Region VIII. It is consistant with Government of the Philippines (GOP) and Regional Government goals to enhance profitability, employment and improved nutrition, and with the USAID 1986 CDSS, as supplemented, for extension of appropriate technologies for increased small farmer income and improved livelihood.

Indications of goal achievement are increased efficiency and productivity by the farmer from his limited resources, increases in numbers and duration of upland farmer children in school, increase in use of consumer goods and production inputs.

2. Project purposes are first to identify, adapt, and disseminate profitable and sustainable technologies appropriate to the Target Farmer Environment (TFE); and second, to strengthen and institutionalize the Farming System Research and Extension FSR/E) mechanism for providing rainfed agricultural technologies to the resource conditions found in the upland areas of Region VIII.

End of project status accomplishment indicators are first, that farmers are adapting practices which improve productivity, sustainability, and profitability and research staff are conducting on-farm field trials to test and disseminate technology expected to improve farmer resources and productivity.

Second, municipal and province RDA staff are using FSR/E methodology to determine farmer needs and to provide appropriate technology to resolve their needs. RDA and Visayas State College of Agriculture (ViSCA) staff jointly conducting research based on Site Research Management Unit (SRMU) and RDA field staff assessment of farmer needs. RDA and ViSCA staff providing FSR/E training to their respective staffs, agricultural college students, other regional agricultural college staff as well as national and international practitioners and students of FSR/E.

3. Project outputs that contribute to the goal and purpose are:

   a. The target farmers are adapting project tested and recommended technologies resulting in increased profitability of their farming enterprises. Using such observable data as school attendance, use of consumer goods and production inputs and produce for home consumption, farmers are determined to have a better standard of living when compared to baseline survey data and other appropriate indicators.

   b. The FSR/E methodology and philosophy is reflected in the regular activities of the RDA Research Division and Extension staff of predominantly rainfed upland municipalities, i.e, SRMU identifying and solving farmer-

based problems; provincial, municipal RDA staff extending and monitoring farmer adoption of tested technologies. Close links and working relationship are also maintained with ViSCA and other agricultural colleges of Region VIII.

c. The ViSCA/Farm Resource Management Institute (FARMI) has demonstrable capability in FSR/E training, research and formal teaching; have working relationship with, and are providing services to the RDA, other regional agricultural colleges as well as national and international FSR/E practitioners and students.

d. Other agricultural colleges and private voluntary organizations (PVOs) or non-governmental organizations (NGOs) including farmer training centers such as, but not limited to, Basey Agriculture College, Leyte National Agriculture College, Northern Samar Integrated Rural Development Project and Farmers Training Center Foundation Incorporated at Gandara, San Jose Parish Credit Cooperative, are providing FSR/E training to farmers, formal classes for students and are working in close relationship with ViSCA and the RDA for technology input and methodology support.

C. PROJECT ACTIVITIES

To achieve the project outputs the following activities will be pursued:

<u>To achieve output a</u>

1. Two SRMU farm-tested technologies, the ipil-ipil - madre de cacao hedgerow contour and the Kudzu - centrosema enriched fallow will be packaged for dissemination. The project will develop farm profile sheets and implementation guides for each of the tested technologies. Teaching materials such as audio-visual aids and farm leaflets will be produced to assist extension technicians in teaching the recommended technologies. The SRMUs and the PDO staff, in conjunction with the extension field personnel, will define target farmer environments (TFE) and specific target farmer groups in their locality based on the minimum transfer conditions for each technology. Once the target farmer groups are identified, farm leaders from these groups will be brought to the SRMU sites to visit various farms which have tested and adopted the recommended technologies. Small quantities of seeds or planting materials and farm leaflets will be distributed to encourage the farmers to try the technologies on their farms. The six SRMUs will continue to develop prototypes of farm-tested technologies and appropriate extension

methodologies in the existing sites in close collaboration with the field extension personnel in the immediate area.

2. Farm-tested technologies from the existing six SRMU sites will be piloted by field research technicians (FRT) in eight additional sites in the region. These are:

Province	Sites
Northern Samar	San Isidro Lope de Vega Catarman
Eastern Samar	Borongan Dolores
Southern Leyte	Maasin Lilo-an
Biliran, Leyte	Naval

The Project Director Office (PDO) staff will first orient the Field Research Technicians (FRT) on the farming systems approach and conduct on-the-job training each time they visit the pilot sites. The sites in Northern Samar will be maintained in cooperation with the Northern Samar Integrated Rural Development Project (NSIRDP). SRMU farm tested technologies whose profile sheets fit the TFEs in the expansion area will be tested in the new sites.

3. After the the pilot phase, which is not expected to exceed one crop year, the project will embark on a widespread outreach program. Working through the provincial and municipal RDA staff and extension personnel, appropriate technologies tested in the sites will be disseminated to specific groups of farmers in the various municipalities within the TFE. Farmer-to-farmer interaction and other group extension methods will be extensively utilized to generate interest and encourage trial of the recommended technologies. Using the manpower and facilities of the agricultural communication unit of the regional RDA and with the support of the project, mass media will be harnessed to disseminate information to target farming communities.

In the Villaba and Jaro areas, where the hedgerow contour and enriched fallow technologies have been tested, widespread dissemination will commence on the first year of cycle II, again extensively using the farmer-to-farmer interaction approach.

4. To support the technology dissemination program, seeds, planting materials of the recommended leguminous trees and other substitute indigenous species will be produced and/or multiplied in nurseries and production plots in several experiment stations in the region. Crop seeds and/or planting materials will be produced and multiplied in the following regional experiment stations.

    a. Romualdez Experiment Station
    b. Hillyland Integrated Research and Extension Center (HIREC)
    c. Malitbog Sheep and Goat Research and Production Center
    d. Gandara Seed Farm

    Improved breeds of livestock will be multiplied at the Malitbog center and HIREC in Villaba.

    In anticipation of the substantial requirement for these materials in the outreach phase, nurseries and multiplication plots will also be arranged with various agricultural schools in the region. These are:

    a. Leyte National Agricultural College (Villaba)
    b. Leyte-Leyte National Agricultural College (Leyte-Leyte)
    c. Biliran National Agricultural College (Biliran)
    d. Samar National Agricultural College (San Jorge)
    e. Basey National Agricultural School (Basey)
    f. Eastern Samar National Agricultural College(Borongan)
    g. Salcedo National Agricultural College (Salcedo)
    h. RKK Memorial Agricultural and Fisheries Technical Institute (Bontoc)

    Where possible, farmer groups will be encouraged to set-up their own nurseries and multiplication plots to serve their farming communities.

<u>To achieve output b</u>

5. While dissemination of recommended technologies is being done, extension field personnel of the RDA will undergo intensive training on Farming Systems Approach Development (FSAD), provincial and regional offices and technical staff will attend a shortcourse to create awareness and develop their understanding of the farming systems approach especially as it applies to extension. Municipal Agricultural Officers (MAO) and Agriculture and Food Technicians (AFTs) will likewise undergo the same short course but, in addition, will go through a periodic on-the-job training to be conducted by the project's mobile training team composed of project and ViSCA staff.

A modified T&V system will be adopted whereby the mobile team will orient the extension agents on a bi-weekly basis.

a. The AFTs and the MAOs will be given specialized FSR/E training to create awareness and develop their understanding of the farming systems approach. Particular emphasis will be placed on non-formal education techniques and methods for extending the SRMU developed technology and monitoring farmer experimentation.

b. A mobile FSR/E training team will be created to design and implement appropriate pre-service and in-service for Provincial Agricultural Officers (PAOs) SRMUs and selected faculty from the local agriculture schools. This training team will be composed of two staff from FARMI and two staff from the RDA Manpower Training Unit.

c. SRMU staff will receive specialized training in farm household enterprise and market analysis to help them in the identification and promotion of viable income producing activities. Support for this activity will be provided by ViSCA staff in conjunction with technical assistance support.

6. ViSCA, SRMUs and extension personnel will meet with target farmers in the barangay within the FTE and through group interaction develop a short-term program plan. The program plan will indicate the activities to be undertaken by the farmers, extension agents, SRMUs and ViSCA to solve the problems they have identified within one production cycle (generally a two crop season) or one year.

7. During the production cycle, as the extension personnel perform various extension activities with their target farmers, the mobile training team will visit regularly, conduct short training session with them and feedback to the MAOs, PAOs and project management the nature and urgency of support needed by the AFTs.

8. At the end of the production cycle, the SRMUs, ViSCA, extension personnel and target farmers will meet to assess and evaluate the progress each party has made in solving farm household problems and in increasing family income. Corrective actions will be spelled out and the strategy and activities to be done for the next production cycle will be agreed upon.

9. After the second year of cycle II the region will begin to consolidate farm-household problems and develop the appropriate research and extension strategies for the

region. These will be reflected in the research program of the Regional Research Coordinating Council and in a regional extension program which the DA regional office will develop. The farming systems approach as applied to research and extension is the appropriate mechanism for an autonomous regional unit to operate and serve its clientele efficiently and effectively.

To achieve output c

10. ViSCA/FARMI will take steps to improve its ability to provide support services to the SRMU staff. Three joint ViSCA/RDA staff visits to each site per month will be scheduled. This will significantly increase support to site teams and improve the communication between ViSCA and the Department of Agriculture.

11. ViSCA/FARMI will provide expertise, guidance and library staff time to establish and maintain a cross-referenced catalogue of the farming systems and related materials located on campus.

12. Based on the farm problems identified during the barangay program planning activities and at SRMU pilot sites ViSCA will prepare back-up research programs to be submitted to RDA for approval of funding.

To achieve output d

13. The project and ViSCA will conduct outreach training for staff members of cooperating agricultural schools and dissemination activities with farmers from their surrounding communities. These schools are follows:

    a. Leyte National Agricultural College (LNAC)
    b. RKK Memorial Agricultural and Fisheries Technical Institute (RKKMAFTI)
    c. University of Eastern Philippines (UEP)
    d. Eastern Samar State College (ESSC)
    e. Basey National Agricultural School (BNAS)

14. DA/ViSCA will sponsor scholarship grants to qualified agriculture-teaching staff of the cooperating agriculture schools to improve their expertise on FSR/E.

15. Local agricultural colleges, including ViSCA, RKKMAFTI, LNAC, BNAS, will be assisted in linking their practicum programs with the technology extension efforts of the SRMU sites nearest their locality.

D. Beneficiaries

A conservative estimate of farmer beneficiaries for cycle II can be determined by following the SRMU and RDA planned training and outreach program for project identified production technologies that is planned to start in the summer of 1987. In year one using five tested technologies in five diferent SRMU sites 760 farmers are estimated to be adopters. (see Annex F for details) In years 2 and 3, eight more sites managed by PAOs, MAOs and AFTs will be brought on line and two additional technologies now in testing programs will be introduced in the Northern Samar Integrated Rural Developement Project where initial training and followup visit has been conducted. Year 2 estimated technology adaptors are estimated at 3870 and year 3, 10,000. While this is the major farmers dissemination program of the RDA involving ViSCA as well as SRMU, provincial and municipal staff program to the Region VIII agricultural colleges also will have numerous beneficiaries. This is a planned cooperative program with ViSCA and the SRMUs providing FSR/E methodological and technical training to the Agricultural College faculties who in turn will train students. In conjunction with their neighboring SRMUs the faculties will set up practicums for their students to work with local farmers on FSR/E studies and technology dissemination. 30 students from each of the five colleges or a total of 150 students will participate in the program. Over 1000 RDA, ViSCA and agricultural college staff will participate in-service and pre-service training program during cycle II. Eleven staff will receive advanced degree training and 18, foreign study tours.

The long term multi-year benefits of the project, though it is difficult to predict at this point, will expand to effect nearly every upland in the region provided the FSR/E conceptual methodologies are accepted by the farmers and participating agency staff. This broad acceptance will be indicated by the more active participation of farmers in the program since project emphasis has been changed from cropping pattern research to a whole farm household analysis. The planned training of RDA field staff to implement, over a much wider area, project objectives, as well as the organization of FARMI at ViSCA to handle FSR/E activities heightens confidence that FSR/E will be institutionalized and made a functioning element in training, research and teaching activities of both entities. That the agricultural colleges and municipal government are requesting assistance in providing training for FSR/E programs in their areas also adds confidence to the potential for long-term benefits.

The direct beneficiaries remain essentially the same as described in the initial project paper. These are upland farmers cooperating with the SRMU and RDA staff in diagnostic studies, problem determination, designs for solutions,

research and farmer-managed field trials, and adoption of recommended technologies.

RDA and ViSCA staff who participate in training programs either locally or abroad are also major beneficiaries.

E. Relation to CDSS Strategy and GOP Priorities

The relation to both the CDSS and GOP original Project Paper still maintain. Greater emphasis is now placed on income generation and the profitability of target farmers. More efficient use of labor, greater productivity and improved nutrition are additional areas of emphasis for project clientele.

Increasing the productivity of both the agricultural and non-agricultural components of the limited resource upland communities is a high priority of the GOP and Region VIII government.

In addition to the income generating technologies being designed and tested by the SRMUs, target farm household enterprise analysis will help determine the interelationship between land and animal production, homebased non-farm enterprises and off-farm labor and enterprises. It is by a delicated balance of these activities that the farm household is able to survive. Until the FSR/E practitioner has some knowledge of these interelationship his interventions are more likely to upset rather than enhance the balance. Technical assistance and training assistance to the SRMUs will help develop their capability in analyzing these relationship and thereby contributing to the upland farmers productivity and improved standard of living.

III. PROJECT SPECIFIC ANALYSES

A. TECHNICAL FEASIBILITY

1. Background

In recent years interest in farming systems research and extension has been growing in the Philippines. 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 approach to agricultural development. 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, the GOP's interest in FSR/E comes from the realization that many farmers, particularly in rainfed, upland environments have

not benefited from recent technological innovations. In addition, the proper utilization of rainfed, upland resources is becoming a critical resource management issue in the Philippines. Interest in developing appropriate and sustainable technologies for these areas is growing.

While the process followed in this project is similar to other farming systems activities being coordinated by the Department of Agriculture, there are several features of this project which are different. First, extension and research personnel have been working together on the field teams from the outset thus strengthening the linkage between the two. Secondly, the field teams have conducted research directly with 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 builds upon the recent Department of Agriculture reorganization in which the various bureaus were integrated under the leadership of a single regional director.

2. Defining the Farming Systems Approach to Development

The farming systems approach is an integrated agricultural development process aimed at improving the welfare of small farm households. The farming systems (FS) approach is a problem driven, interdisciplinary team effort that starts and ends with the farm household. The process involves farmers, researchers and extension personnel working together to identify and resolve problems within the specific environmental and socio-economic context in which the target farmers operate. The objective of this collaborative effort is to design, test and/or adapt solutions that are environmentally sound, economically feasible, socially desirable, administratively manageable, politically acceptable, and financially viable.

Depending on the problems identified, the process involves a combination of basic, and/or adaptive on-farm research followed by a dissemination of the resulting technology to farmers who operate under similar biophysical and socio-economic conditions.

The FS approach can be divided into two basic components -- farming systems research (FSR) and farming systems extension (FSE). The two components are viewed as parts of a combined processes commonly referred to as Farming Systems Research and Extension (FSR/E). The FSR/E process involves a series of interrelated activities that are often grouped into five stages: a) Target and Research Area Selection, b) Problem Identification and Development of a Research Base, c) Planning On-Farm Research, d) On-Farm Research and Analysis, and e) Extension of Results - Description and diagnosis, design, testing, and extension.

The Farming Systems Research and Extension Process

Stage I -	Target and Research area Selection	FSR/E team works with the community to define areas or groups of farmers according to common physical biological and socioeconomic characteristics. By working in such "homogeneous" zones the FSR/E team is able to develop technologies appropriate to farmers operating under conditions similar to those of the research area.
Stage II -	Problem Identification & Development of a Research Base	A careful and detailed study of the farming systems and and environmental characteristics of the area. Information about the farmers and the area is gathered through use of observation and informal interviews with farmers.
Stage III -	Planning On-Farm Research	Development of a research design through a review of the problems and opportunities identified in stage II and the formulation of tentative hypotheses. A decision is made about whether to accept present environmental conditions or assume that some degree of change is possible. A preliminary assessment of the possible impact of proposed technologies is made before research is begun.
Stage IV -	On-farm Research and Analysis	FRS/E team conducts on-farm research, initiates further socioeconomic studies and gathers and analyzes additional data relevant to the research. Research is conducted to develop new or adapt existing technologies and to determine how the farmers will respond to the recommendations.

Stage V - Extension of Results	A process of exposing farmers to the technology in a way that it results in a better utilization of limited resources to achieve the goals and aspirations of the farm family.

Depending on the nature of the problem, the planning and research stages may involve only a series of farmer-managed trials to assess the applicability of an existing technology. However, if no relevant technology exists, it may be necessary to undertake a series of basic and applied researcher-managed trials to develop a technology for subsequent testing by farmers on their own fields. On the other hand, an existing technology that looks promising may be moved quickly to the on-farm testing passing the basic research step and much of the on-site researcher-managed trial work. A farmer's expectations must be tempered and risk minimized when such on-farm testing is conducted. The farmer must fully realize he is experimenting and not be put in the position of having a serious loss.

Following a series of successful tests by farmers the technology is ready for multilocational verification and subsequent dissemination. This process involving extension personnel working closely with and monitoring farmer experimentation and assessment is the extension of "E" side of FSR/E.

The key attributes of the FSR/E process include:

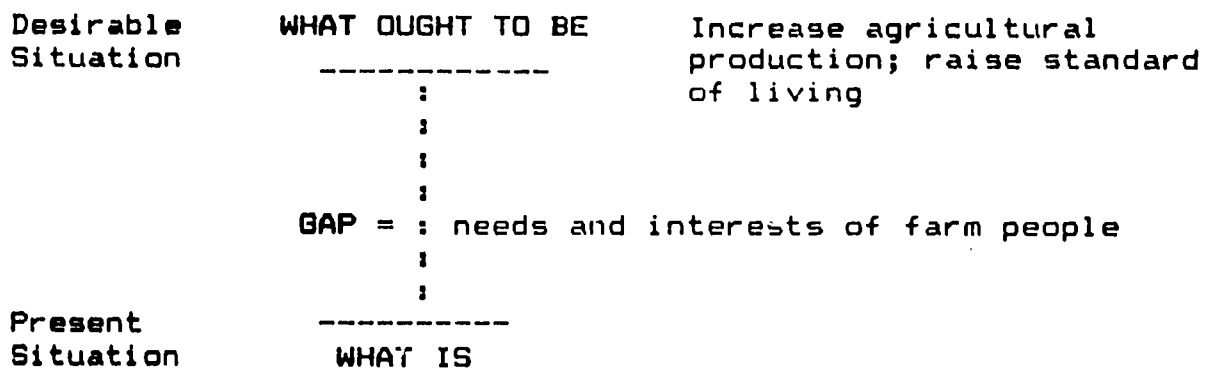
1. Farmer-based
2. Problem-Solving
3. Comprehensive in scope
4. Interdisciplinary team effort
5. Complementary with basic research
6. Interative and Dynamic process
7. Responsible to society

Although often viewed as a series of sequential steps, FSR/E should be implemented as a dynamic and interrelated process of constant rethinking and adjustment to increasing knowledge gathered through socioeconomic surveys, observation and on-farm testing of different strategies and technologies. Originally conceived as an interdisciplinary approach to production research, the FSR/E methodology can and should be used to address the total farm household and its full range of enterprises. Problem identification generally leads to a focus on a particular aspect of the total system such as low soil fertility, erosion, or the cropping pattern. When research is focused on such subsystems, it is done with a regular and systematic recognition of the linkages with other aspects of the system. For example, research on a soil

problem may focus on the impact of liming and/or the introduction of various nitrogen-fixing legumes or agronomic trials and conducted to determine the impact of different legumes and lime treatment levels. At the same time, the farming systems team assess the cost of such technologies in relationship to available capital, labor and the return to other enterprises. In the case of marginal, subsistence farmers, the main sources of income may come from non-farm activities.

The Farming Systems Approach to Extension

Extension is commonly perceived simply as the distribution of improved seeds or the use of fertilizers. But it means more than these. The ultimate objective of extension is the development of people so that they can do things for themselves. Extension is an educational process in that it attempts to bring about desirable changes in human behavior. It is a democratic process in that changes are never imposed on farm people. Extension is a continuous process since it starts where people are and with what they have and gradually improves the situation to what they ought to be. This is shown in the following illustration.



The farming systems approach to extension therefore is the utilization of a given set of limited resources of the farm household in a manner that, given their needs, interests goals and aspirations, and an improved, locally tested and adapted technology, increases production of their farm commodities and subsequently raises their standard of living.

The Extension Program Planning Process

Any extension activity involves a series of logical steps triggered by a need perhaps to survive, increase production or achieve a family goal. Improved farming practices are then searched, identified or developed and if found acceptable to people, are disseminated to the entire farming community. In effect, the whole process can be developed into

a community program with the intervention of the government to accelerate the process. Thus the farming systems approach to extension requires the development of an extension program with the local farming community. There are several variations in the ways extension programs are developed but the basic stages are as follows:

Stage I - People Involvement	Extension agents identify local leaders, secure and stimulate their participation, train and develop them if need be for program planning and execution.
Stage II - Determining an Extension Program	Extension and research personnel collect factual information about the community, selected farm families and the general physical and socio-economic characteristics of the area. The situation is analyzed, problems identified, alternative solutions considered and objectives of courses of action specified.
Stage III - Making a Plan of Work	The extension and research personnel prepare their plan of work to support achievement of the program's objectives with educational and research activities, group organization, and various facilitation activities in close collaboration with the farming community.
Stage IV - Evaluation	The local leaders, extension agents and researchers appraise the situation, exchange ideas and new information and decide on what changes or alternative courses of action need to be made.

The Diffusion Process and Extension

The conventional view of the role of the diffusion process in extension consists of the creation of awareness and development of interest in an improved technology through mass media and the facilitation of adoption through farm trials and individualized extension farm visitations. There are basically two elements which differentiate the farming systems extension approach from the conventional view. First, the extension program planning at the community level which is a cooperative endeavor between the local farmer leaders, extension agents and researchers, creates awareness not when a technology has been generated but at a point where

a technology is preconceived as an alternative option to solve a farm problem. The planning exercise develops the group's feeling of being in control of the situation and stresses the symbiotic relationship between farmers, extension agents and researchers. Second, the emphasis on the active participative role of farmers in the diffusion process whereby farmers are brought in direct contact with other farmers who have adopted the improved technology, enables them to view the recommended practices as part of the whole farm household. The perception of a recommended practice within the context of the total farming situation is an important learning situation for the farmers as this enables them to relate the recommended practice with changes in the allocation of resources in the farm being visited and their own particular situation. This not only improves the farmers' chances of success in adopting the technology but also enhances their abilities to manage their entire farm household. Thus, in the farming systems approach to extension, the farmer takes on a central and pervasive role in the whole process of identifying, developing, and disseminating technologies.

This section draws heavily from:

1) Shanner, W. W., Philipp, P. F. Schmehl, W.R.
Farming Systems Research and Development:
Guidelines for Developing Countries.
Westview Press. Boulder, Colorado, 1982

2) Diagnosis in Farming Systems Research and Extension
Volume I, FSR/E Training Units, TMS-602
Farming Systems Support Project
University of Florida, Gainesville

3) C. W. Chang
Extension Education for Agricultural
and Rural Development, FAO,
Bangkok, Thailand 1960.

3. Operationalizing FSR/E in the Eastern Visayas

During the first phase of the project the concept of Farming Systems Research (FSR) was implemented following a set of procedures upon which various foreign donors and international agricultural research centers had reached general consensus.[1] The steps in this process involved

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(1) 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

(a) Selection of Target Areas

The original project design team reviewed existing secondary data (soil maps, production records, etc.) and interviewed Municipal Development Officers, Mayors and extension agents. Visits were made to barangays to conduct informal interviews with barrio captains, farmer leaders, and groups of farmers. Based on this information the following municipalities were selected as potential project sites:

Municipality	Primary Crop(s)	Major Secondary Crop(s)
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

* (San Isidro site was change to Villaba, Leyte)

(b) Descriptive or Diagnostic Stage

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

(c) Design/Prescriptive Stage

During the first three years of the project effort was concentrated on the design of varietal and cropping systems trials to improve the production of existing system. These efforts were ultimately abandoned in favor of a more farmer oriented problem approach. Initial work at the sites revealed that the indigenous systems were much more diversified than had originally be thought. The concept of the dominate crop focused system needed to be revised. Following a second series of diagnostic exercises the teams in each site developed specific research designs focused on particular constraints of the existing systems.

Key problems identified by the site teams included low soil fertility, cogon grass infestation, lack of adequate pasture for livestock and erosion on sloping lands. A key constraint in the design of technologies to address these problems was the limited resource base of the target farmers. Consequently, the design work focused on low or no input options.

During the cycle II phase of the project, the site staff will be given the necessary training and support to expand their operations in the areas of whole farm analysis and the identification of short-term income generating enterprises.

(d) Testing and Verification Stage

The SRMU at Basey, has worked on the testing and verification of high yielding upland rice varieties (BPI Ri6, UPL Ri5), sweet potato (Kabigting, VSP4, 1139-17), peanut and mungbean. The team is currently working with farmers to test the impact of a legume live mulch undercrop using Desmodium heterophyllum to extend cropping period and sustain crop yield over time and extending enriched fallow strategy using pueraria and centrosema to control cogon, restore soil fertility and reduce labor required for cultivation.

The first staff at Jaro, have worked on enriched fallow trials using Kudzu, Centrosema and Colopogonium. They have also introduced some refinements to existing multi-storey cropping systems and have involved farmers in a livestock integration program using goats.

The team at Villaba, has worked with ten farmer cooperators to test the Kudzu and Centrosema enriched fallow technology and has introduced: 1) the planting of improved grasses to control erosion on sloping fields, 2) Ipil-ipil (Leucaena) and madre de cacao hedgerow contouring.

The team at Matalom is working on acid soil conditions with 19 farmer cooperators to test and verify the application of broadcast "anapog" lime to increase soil Ph level.

The SRMU staff at Bontoc, have introduced the Villaba hedgerow contouring technology along with other strategies focused on multi-storey cropping of coconut cacao, pineapple, banana and legume and an abaca rejuvenation program recommended by the ViSCA researchers.

The Gandara team has focused on the rehabilitation of cogonal land using prostrate legume planted in sequence to control cogon, restore soil fertility and save labor in cultivation and the utilization of Ipil-ipil associated technologies for erosion control and feed supplementation for caracows. The caracow supplementation program has resulted in an increase in milk which has been used in a local cheese making operation.

(e) Dissemination Stage/Pilot Production Program

Significant work has already been done in the area of extension. Several sites have hosted orientation programs for farmers from other localities and the San Isidro (Villaba) team has begun experimenting with a program to train farmer trainers. Two farm-tested technologies had so far been identified as ready for widespread dissemination to TFEs in other provinces. These are:

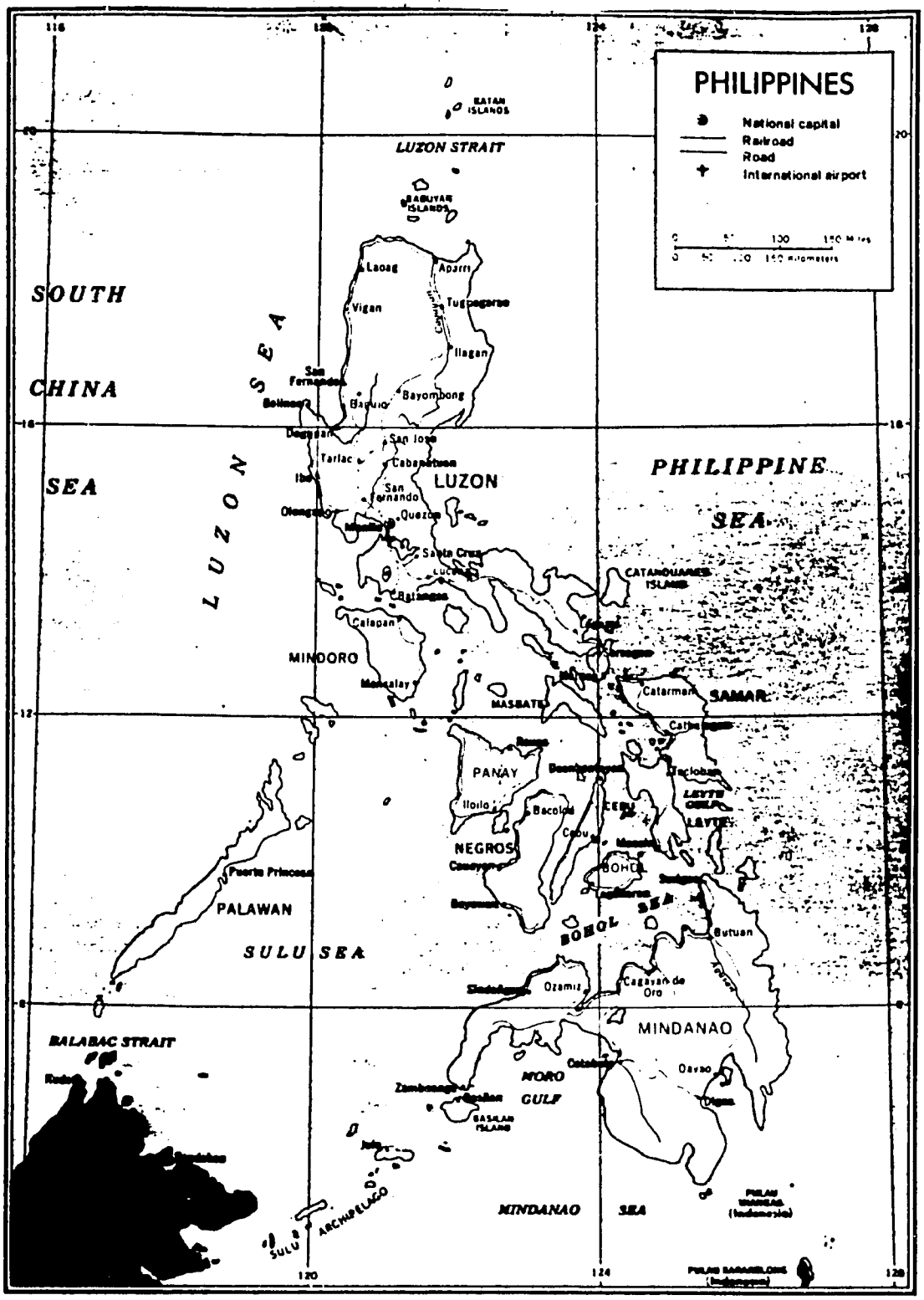
1. The contour hedgerows using Ipil-ipil or madre de cacao developed at the SRMU site in Villaba, Leyte.

2. The enriched fallow using centrosema, colopogonium and kudzu developed at the SRMU site in Jaro Leyte.

These two technologies have started to diffuse to adjoining farms in the immediate and nearby communities without the project's intervention. The contour hedgerow has a long-term potential for adoption on about 80,000 hectares while the enriched fallow has a long-term potential for adoption in about 110,000 hectares in the region. On the basis of agro-climate and land use, it is estimated that about 65,000 farm households can benefit from these two technologies alone. (See Annex E for base data.) The live mulch technology which uses Desmodium species being developed in Gandara, Leyte will be ready for pilot testing in two years. The live mulch are leguminous plants which not only enrich the soil but also reduce loss of soil moisture and soil temperature. It is presently tested in corn and other annual crops to reduce labor and cost of weeding. Corn alone is planted in about 53,000 hectares in the region. The liming trials in Matalom, Leyte designed to increase the pH of predominantly acid soils in Matalom and Bontoc are on-going. Deposits of Matalom "anapog" lime are locally available and have been pinpointed in several sites in the area. The project will look into the extraction and local processing of lime using simple mechanisms which can be locally fabricated. These are a few of the promising technologies being tested by the SRMUs. Many of the technologies utilize indigenous or low-cost inputs to improve existing farming systems as these assure the wider adoption and sustainability of the recommended practices.

This section is based heavily on:

1) Lightfoot, Clive
FSDP-EV Report No. 42
A Report on the Principles and Practices Used by the Farming Systems Development Project
April, 1986



GEOGRAPHY

The Philippine Archipelago extends about 1,770 kilometers (1,100 mi.) north to south along the southeastern rim of Asia, forming a land chain between the Pacific Ocean on the east and the South China Sea on the west. It is separated from Taiwan on the north and Malaysia and Indonesia on the south by straits a few kilometers wide and from Vietnam and China on the west by the 966-kilometer (600 mi.) breadth of the South China Sea.

The archipelago consists of some 7,100 islands and islets. Only 154 of these islands have areas exceeding 14 square kilometers (5 sq. mi.). Eleven of them compose about 95% of the total land area and population. Luzon, the largest island, is about the size of Kentucky; Mindanao, the second largest, is about the size of Indiana. Between these two major islands lies the regional grouping of smaller islands called the Visayas. The irregular coastlines, marked by bays, straits, and inland seas, stretch for more than 16,000 kilometers (10,000 mi.)—twice as long as the coastline of the coterminous United States. Manila is located on Luzon.

4. Application of FSR/E Concepts and Methods in Other Projects in the Philippines and Southeast Asia

Farming Systems Research in the Philippines grew out of the long history of cropping systems research at the International Rice Research Institute (IRRI) and the University of the Philippines College of Agriculture at Los Banos. This integrated approach is currently the guiding force in the USAID-funded Rainfed Resources Development Project (RRDP) in the Bicol region and for the World Bank supported Regional Integrated Agricultural Research System (RIARS).

One of the main objectives of the RRDP is to expand application of viable upland technologies and extension services and to increase income and production. The Bicol component of the RRDP, is specifically designed to to expand the activities of the RIARS to develop low-cost production and income strategies for farm families in upland-rainfed areas of the region.

The RIARS is a mechanism and program for generating location-specific and cost-effective farming systems technologies for the various agro-climatic environments and socio-economic circumstances of farmers throughout the Philippines. The system operates throughout the country manned by Provincial Technology Verification Teams (PTVTs). The PTVTs are composed of extension workers trained in farming systems research who conduct cropping pattern trials, component technology tests and integrated crop-livestock trials on farmers' fields.

The RRDP-B works with the RIARS but is focused on identifying and disseminating useful production and income-generating technologies to limited resource farmers. The FSDP-EV project operates in a similar level at the barangay level in Region VIII and relies on the Visayas State College of Agriculture (ViSCA) faculty for needed backstopping research.

At least three other USAID projects are related to and likely to reinforce the interventions proposed under cycle II of FSDP/EV. The Local Resources Management Project in the Eastern Visayas 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. LRMP can contribute in two ways to the FSP/EV. First, by generating local government capacities to play a stronger role in this project and to undertake complementary projects at the local level.

The Caraycaray Leyte community based crop production project located in San Miguel, Leyte is supported by the Rainfed Resource Development Project. This involves the establishment of a barangay nursery for the production of planting

materials and training of farmers based on technologies developed by the FSDP-EV project. The project has commenced its activities early this year.

The Rural Enterprise Development Project (REDP) aims at developing appropriate systems to promote labor intensive private enterprises in product lines that show a growth potential in the CDSS regions. As enterprises expand at the micro level, there is an expectation that some activities will be agriculturally related offering market and possibly seasonal employment opportunities or improved supply of agricultural inputs to farmers in the same areas served by FSDP-EV.

Outside of the Philippines, the farming systems approach has been applied to a range of agricultural production and upland watershed management projects and research activities. Examples where aspects of the approach has been particularly successful include the Khon Kaen University Farming Systems Project in Thailand. This project has made a particular use of the Rapid Rural Appraisal methodologies for verifying secondary data on the farming systems identifying key constraints and target environments. Khon Kaen participants in the Southeast Asian Agroecology Network (SUAN) which has developed a farming systems type approach for studying upland farming and resource management systems. This approach has been utilized by participating institutions in the Philippines and Indonesia.

The FSR/E approach is growing in interest and application in Indonesia. It has employed by an AID-funded upland soil management project in Sumatra. The approach is also being utilized by various research institutes within the Indonesian Agency for Agricultural Research and Development (IAARD).

B. Economic Feasibility

1. Relation to Region VIII

The point was made in the initial project paper on the difficulty of doing cost benefit or internal rate of return analysis on basically research projects where little adoption of the technology had occured. The project is now at a point where certain low input practices have been tested that show potential for broad adoption in the region. The contour hedges of leguminous trees is an example, Though Psyllid sp. insects and drought have caused serious problems, new indigenous cultivars are showing promise and and import of resistant germplasm is being tested. The basic concept is accepted and research has produced better adapted varieties. The multiple benefit of leguminous living fallow and mulch to reduce erosion, control cogon grass (Imperata), and improve fertility plus providing forage are practices ready or

shortly to be ready for dissemination. Liming, goat production and multistorey cropping are all new introductions being made by the FSR/E project. Benefits from the spread of these practices will accrue to both the farm and the regional economic levels. Strengthening the SRMU in both their research and extension efforts; institutionalizing the FSR/E concepts within the RDA, ViSCA and other agricultural colleges; and improving liaison with the PVOs and NGOs implementing agricultural training project in the region will provide a sound economically viable method for disseminating these new technologies.

2. Alternative Solutions

Several alternatives exist for implementing major project activities and objectives. The primary emphasis could be on continued strengthening of the SRMUs. This emphasis would support two major purposes: strengthening and institutionalization. This could encompass more farmer training and resource allocations, expanding to ten or twelve sites, technical assistance to provide more in -service training and clear supervision. This would continue to keep the SRMUs in the forefront of FSR development and expansion and increase their monopoly on the FSR technology. It is likely that a well trained and experienced staff would result at the end of the project extension. However, the RDA would not be much farther down the road to institutionalizing than at present. Nor would ViSCA realize their potential as trainers or in backup research activity.

If the project goes an additional step and continues to provide resources to ViSCA and FARMI then more training and research capability will be developed. Formal course work will be expanded at ViSCA and proposed summer seminars, mobile training exercises and apprentice programs will be established for RDA, ViSCA, and other agricultural colleges and FSR/E interested staff. As an example, twenty non-region participants are programmed for the 1987 summer seminar. Though the training of non-regional staff extends project activity to other parts of the country and adds to its credibility for national application, it does not contribute to the primary goal of improving the livelihood of upland farmers in Region VIII. To accomplish the three purposes of strengthening, institutionalization and providing income-enhancing and sustainable technology, training in the farming systems approach must be provided to the province, municipality and AFT staff to a much greater extent than has been accomplished to date. Resources are not available to cover the entire region however. Those municipalities that fit FTE with comparatively large populations of upland farmers adjoining existing SRMU's could logically be starting points. They can be trained by project teams and assisted in implementing FSR by their SRMU neighbors more easily than a

random sampling of predominately upland municipalities. This will also offer greater opportunity to extend improved technologies developed by the SRMUs. These identified and adapted technologies are also more likely to fit adjoining TFE than those farther removed.

3. Low Cost Strategies

Low cost, low input strategies continue to be appropriate in this project both for the hill farmer client and the Region VIII implementors.

Budget requests for cycle II of the project are orientated toward training activities that will institutionalize and disseminate project accomplishments that have been realized to date. Emphasis is on rehabilitating and maintaining existing equipment and using low cost appropriate methodologies in providing both training and dissemination. Advanced training in management and economics is being requested to provide for more efficient and financially sound implementation of the carry-on activity after the project terminates. Plans are being made to minimize recurring costs so that major project activities of research, training and dissemination can be continued within realistic projected budgets.

Inputs from the provinces and municipalities, both in funds and in kind, contribute to farmer and staff training costs. The Regional Director of Agriculture also provided funds, in addition to those budgeted, for special project activities. Those efforts at all levels of participation indicate the strong commitment to carry-on project activities at levels commensurate with their resources.

C. Social Soundness Analysis

For the purposes of social soundness analysis there are six broadly defined agro-climatic zones in which the project has been operating for the last six years. The six sites were originally identified with different primary crops and farming systems. Subsequent survey and research work has shown that the dominant cropping system concept is not a useful descriptor when applied to marginal rainfed farming operations. The micro-level heterogeneity observed among small farms in the uplands has forced the six SRMU teams to utilize a farmer problem orientation to their diagnostic and research work. As a result, each SRMU has identified and is working on a particular farmer recognized constraint. The key concerns for which technology has been developed include low soil fertility, erosion control, eradication of imperata, improvement of pasture, reduction in cultivation time and increased production from multi-story cropping systems.

Locating and staffing SRMU offices in the barangays has improved the reputation of the Department of Agriculture in the rural areas and has made it possible for the site teams to work directly with an increasing number of farmer cooperators in the testing and verification of a range of different technologies. The barangay-based adaptive research carried out over the first six years of the project has resulted in more than 450 technology adoptions by cooperating farmers. In addition there has been a significant number of spontaneous adoptions by farmers who are not participating directly in the technology verification trials.

The support role of ViSCA researchers and their interaction with with the SRMUs has further strengthened the collaborative interaction between the project staff and the target farmers. Building on this base, farmer participation is expected to increase during the second phase as the project begins to focus more and more of its effort on improving and/or expanding income generating activities. The problematic areas nearly all relate to the relationships between the cooperator and other people and groups in the socio-economic environment, rather than with the project staff. Of particular importance are the terms under which the farmer can use, and have security to use essential resources such as land. Land tenure and other aspects of the varied socio-economic structures that prevail in each of the site areas of Region VIII are key factors in determining whether a particular farm family can be a beneficiary in part or in 'toto' of any benefits (production and income) that may be derived from project generated and/or adapted technologies.

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 where rights and tenure on the trees are differentiated from the rights to grow annual crops on the land underneath or adjacent to the coconut trees, (2) the substantial uplands 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) the large areas 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.

In establishing criteria for farmer cooperator selection the project has looked closely at the land tenure situation. In some areas more than 80% of the target farmers are tenants. In other areas majority of the cooperators are Certificate of Land Transfer (CLT) holders. Land tenure as well as the

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EASTERN VISAYAS FARMING SYSTEMS PROJECT
SUMMARY SOURCE, OUTPUT AND YEARS OF FUNDS

PROJECT OUTPUTS	1988 (000)				1989 (000)				1990 (000)				1988-1990 (000)			
	AID	GOP Pesos			AID	GOP Pesos			AID	GOP Pesos			AID	GOP Pesos		
	FX	Pesos	NEDA+ RDA	VISCA	FX	Pesos	NEDA+ RDA	VISCA	FX	Pesos	NEDA+ RDA	VISCA	FX	Pesos	NEDA+ RDA	VISCA
Technical Desemination	$89	4,406	2,604	1,420	$57	3,458	2,636	1,000	$20	4,124	2,300	900	$166	11,988	7,540	3,320
Istitutionalization	$130	2,100	1,500	2,755	$70	2,160	1,000	1,010	$17	1,398	1,000	335	$217	5,658	3,500	4,100
FSR/E Research & Strengthening	$164	1,087	764	1,000	$65	1,150	500	1,000	$10	906	500	700	$239	3,143	1,764	2,700
Ag College, PVO, NGO Outreach	$10	500	320	225	$10	442	200	200	$0	0	200	200	$20	942	720	625
Evaluation	$50	0	0	0	$0	0	0	0	$0	400	0	0	$50	400	0	0
Subtotals	$393	8,093	5,188	5,400	$202	7,210	4,336	3,210	$47	6,428	4,000	2,135	$642	21,731	13,524	10,745
AID Total	$862				$663				$484				$2,009			
GOP Total			$529				$377				$307				$1,213	
Grand Total	$1,391				$1,040				$791				$3,222			

Note: Inflation factor on AID only, starting 1988: FX at 6%, Peso at 10%

EASTERN VISAYAS FARMING SYSTEMS PROJECT
SUMMARY SOURCE, INPUT AND YEARS OF FUNDS

PROJECT INPUTS	1988 (000) AID FX	1988 (000) GOP Pesos			1989 (000) AID FX	1989 (000) GOP Pesos			1990 (000) AID FX	1990 (000) GOP Pesos			1988-1990 (000) AID FX	1988-1990 (000) GOP Pesos		
		Pesos	NEDA+ RDA	VISCA		Pesos	NEDA+ RDA	VISCA		Pesos	NEDA+ RDA	VISCA		Pesos	NEDA+ RDA	VISCA
Technical Assistance	$282	925	60	60	$173	765	60	10	$20	0	0	0	$476	1,690	120	70
Commodities	$4	500	0	3,000	$2	255	0	1,000	$0	0	0	0	$6	755	0	4,000
Participant Training	$57	190	300	20	$27	190	276	0	$27	28	0	0	$111	408	576	20
Program Inputs	$0	6,478	4,828	2,320	$0	6,000	4,000	2,200	$0	6,000	4,000	2,135	$0	18,478	12,828	6,655
Evaluation	$50	0	0	0	0	0	0	0	0	400	0	0	$50	400	0	0
Total	$393	8,093	5,188	5,400	$202	7,210	4,336	3,210	$47	6,428	4,000	2,135	$643	21,731	13,524	10,745
AID Total in $	$798				$563				$368				$1,729			
AID Total W/Inflation	$862				$664				$484				$2,009			
GOP Total in $			$529				$377				$307				1,213	
Grand Total in $	$1,391				$1,041				$791				$3,223			

Note: Includes inflation factor starting in 1988: AID only, Pesos 10% FX 6% Inflation total: $280

environmental and biological requirements of the technology will be critical factors in assessing the transferability of a tested technology from the SRMU site to another locality within the Region. The project may ultimately need to develop strategies that deal specifically with the characteristics of a range of land tenure systems.

In summary, criteria for selection of farmer cooperators and appropriate technologies at each of the project sites nave taken into account the the prevailing socio-economic structures to insure that the project will have socially sound consequences.

D. Financial Plan and Analysis

1. Summary of AID Project Budget

The strategy of this proposed design and the accompanying budget is to maximize the support of field activity and extension of identified useful practices to the farmer. This requires a massive field training program both for RDA and the upland farmers. Training and research support is provided by VISCA and for the first time the smaller agricultural colleges are being supported in their efforts to train their students in farming systems methodology. As part of their field study they will also work with MAOs, AFTs and where possible SRMUs to help extend recommended practices and learn first hand how to determine farmers priority problems.

The AID budget for cycle II of the project is $2,008,550 of which $280,000 is inflation. $924,000 or over 45% is in support of farmer and staff training which is designed to teach FSR/E to field staff working in the uplands and extend technologies developed in tha previous project to upland farmers.

Over 11,000 farmers and 2,000 staff are to be trained during the life of the project.

Major project components are:

Technical Dessemination	$765,400
Institutionalization	$499,900
FSR/E Research & Strengthening	$396,150
A. College, PVO, NGO Outreach	$ 67,100
Evaluation	$ 70,000
Total	$1,728,550
Inflation at 10% Pesos and 5% dollars Compounded from 1988	$280,000
Grand Total	$2,008.550

2. GOP Contribution

The GOP budget for cycle 2 totals equals 38% 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. a significant portion of the GOP budget 45% is allocated to direct farmer-related activities (extension, dissemination, seed/material multiplication and farmer training). 31% is allocated for the training of RDA staff to institutionalize TSAD in the region. Additive recruitment costs to the GOP will be minimal and will be limited to normal wage adjustments and facility maintenance.

Summary of GOP Contribution

Technical Dissemination	US$	543,000
Institutionalization		380.000
FSR/E Research & Strengthening		223,000
Ag. Colleges, PVO, NGO Outreach		67.250
Grand Total	US$	1,213,250

3. USAID Funds Distribution Channel.

To facilitate the transfer of funds from USAID/Manila to the FSDP-EV the following plan has been developed.

Given the sucess of using a contract with a private petroleum firm in Tacloban to provide petroleum projects fo the project, it is proposed that, following USAID competitive bid procedures, a contract be negotiated with a non-profit institution in Region VIII to be known as the Funds Contractor to hold USAID funds designated for agreed expenses and make them available to the FSDP-EV Director or his designee their submission of bills showing official FSDP-EV expenses.

The project will take bids and conduct procurement in accordance with Department of Agriculture established procedures and will be monitored by the Department of Agriculture and USAIDs financial and auditing departments on a routine basis. The Department of Agriculture procurement staff will accomplish the bidding and procurement necessary thereby relieving project staff of these duties. The FSDP-EV Director or his designee must monitor the goods and services received to assure that they are fully satisfactory for the purpose for which they were purchased.

At the initiation of this agreement and each 12 months following through the project life, the Project Director will submit an annual budget based on the Project Paper budget format for operating expenses, training, research and extension activities plus any other locally procured

equipment supplies and services. The Funds Contractor will make funds available according to the budget line items except a twenty percent (20%) change between line items may be approved by the FSDP-EV Director.

USAID/Manila will make available to the funds contractor a one month advance of funds based on 1/12 of the annual budget submitted in order for the project to pay bills as submitted. This advance will be replenished to the funds contractor on the submission of paid receipts for official FSDP/EV expenditures to USAID/Manila

E. Environmental Concerns

The Initial Environment Evaluation (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 who worked 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 in Region VIII. Thus the use of expensive agricultural chemicals, as expected, has been minimal during the project period. Because of the marginal resource conditions in the project area, the technologies adopted to the local conditions rely mostly on unexpensive biological control measures such as the use of pest resistant and acid-tolerant plant species and indigenous soil-enriching legumes to control a common local weed (cogon, Imperata cylindrica). The biological approach will continue to be a major thrust of the research agenda of the follow-on project as it offers the least cost, non-contaminating alternative to chemical control of pests and weeds. One aspect of the research agenda is the trial and observation of the newly introduced plant and animal species to ensure their continuing adaptation to the local environment and thus preserve ecological balance. Thus, the impact of the research activity is positive through the enhancement of the biological diversity of the area while preserving ecological balance. 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.

IMPLEMENTATION PLANNING

A. ADMINISTRATIVE ARRANGEMENTS

1. Background

The Department of Agriculture formerly the Ministry of Agriculture and Food through its Region VIII office continues to function as the lead agency in the project and has lived up to its reputation for strong management and innovation. It had, in several instances, proven beyond doubt its commitment to see the project through. ViSCA has also lived up to expectations. In its own volition, it created in late 1985, a unit called the Farm and Resource Management Institute (FARMI) as the first step in institutionalizing farming systems in ViSCA.

The FSDP-EV, the RDA, and ViSCA have been in numerous occasions cited as models of how the farming systems approach is systematically applied to agricultural research. They have recently been called upon to organize a farming systems training program for DA personnel from other regions of the country.

In cycle II, the RDA region VIII office will be primarily responsible for implementation with ViSCA/FARMI in a support role.

2. <u>The Office of the Undersecretary for Regional Operation (OURO) Central Office Department of Agriculture.</u>

The OURO was formally created by Executive Order No. 116 to supervise the operation of all regional offices of DA. To handle financial, administrative and liaison work for cycle II of the project in Metro Manila, the RDA Regional Director will detail one or two of its staff to the OURO to perform these responsibilities. The OURO will provide a work area for the project staff and assist in facilitating the requirement of FSDP-EV with either units within the RDA, the Department of Budget and Management (DBM), USAID and other agencies in Metro Manila.

3. Department of Agriculture Region VIII Office

The reorganization of the Department of Agriculture Region VIII started in 1982.

The organization chart is shown in Annex D. The different bureaus (agricultural extension, animal industry, plant industry and soils) have been pulled together under the leadership of the RDA Regional Director. He is assisted by three (3) Assistant Regional Directors, each representing the predominant commodities in the country i.e. crops, livestock and fisheries.

Executive Order No. 116 issued on 30 January 1987, subjected the Department to a second round of reorganization. The regions are given more autonomy in managing their resources but the organizational structure in the region is still unclear. The regional office in Region VIII submitted a proposal structure (see Annex D) which essentially follows the organization at RDA's central office, but no response had been received at this time. The proposed organization chart shows three divisions, namely: operations, research and support services, which at the regional level are each headed by an assistant regional director. The line positions in the provincial and municipal levels remain the same. The research division will be reorganized according to function rather than commodity-orientation while the extension and regulatory staff divisions will be merged into the operations division.

The FSDP-EV project staff has not been affected by the reorganization although a 50 percent turnover of personnel was noted during the project life. The Project Director will continue to exercise day-to-day project management and field work operations but he will be under the direct supervision of the RDA Regional Director. Annex D show the revised organization chart of the project and the responsibilities of its offices and staff. The Regional Project Management Committee (RPMC) which served as the policy-making and coordinating body of the project was essential at the initial stage but as the project progressed, the exercise of its functions narrowed down to the RDA Regional Director and the VISCA President. Research proposals have recently been passed through the Regional Research and Development Coordinating Committee, a body which prioritizes and allocates funds to various agricultural researchers in the region. Both the DA Regional Director and the ViSCA President are members of this committee. The RPMC will therefore be abolished as the project has began to institutionalize the farming systems approach in the region. The DA Regional Director will be responsible for achieving the purposes and output of cycle II of the project.

The RDA through its PAOs and field personnel will be responsible for disseminating the technologies tested by the SRMUs. This includes the production and supply of seeds and other planting materials and distribution to target farmers with the assistance of the project. However, over the 3-year project period, the project will orient and train the provincial and municipal extension staff on the farming systems approach. The PAOs and MAOs will be directly responsible to the RDA Regional Director in achieving the dissemination targets in their respective areas. The project will coordinate with these officers in the orientation and training of the field staff not only on the farming systems approach but also on the recommended technologies. The project will likewise monitor the progress of the dissemination efforts and assist in the resolution of project-related problems in the different municipalities and barangays. In the SRMU sites, the project shall work closely with the MAOs and AFTs operating in the area.

The HIREC in Villaba will be developed to assist in:

a. On site farming systems research.

b. Training of extension personnel on farming systems and upland, rainfed technologies.

c. Demonstration site and training of farmers on recommended upland technologies

d. Multiplication of seed and planting materials to support the dissemination of technologies.

The RDA will assign one or two of its regular staff to OURO to handle liaison, administrative and finance functions in Metro Manila.

4. ViSCA

ViSCA will continue to provide technical, biological and social science expertise to the SRMUs and the RDA which will be actively involved in the technology dissemination activities of the project. This will be accomplished through the FARMI whose staff originally composed the inter-disciplinary team which provided outreach support to the SRMUs. The major functions of the ViSCA/FARMI related to cycle II of the project are as follows:

a. Training in FSR/E concepts and methodology for RDA staff.

b. Curriculum development focused on the incorporation of FSR/E concepts into regular instructional programs at ViSCA and the local agricultural schools.

c. Coordination of a student practicum outreach program at ViSCA and the local agricultural schools that extend SRMU and ViSCA tested technologies to target farmers.

d. Specific backup research requested and supported by the RDA to address identified production and/or resource management problems.

The transformation of the FSDP-EV/ViSCA interdisciplinary team from an ad hoc group to a regular unit of the college reflects the strong commitment of ViSCA to institutionalize the farming systems approach within itself and the region. The organization of FARMI is shown in Annex D. ViSCA has requested the GOP for a separate Key Budget Item to fund the activities and organization of this new unit starting 1987.

FARMI will coordinate with the Regional Training Center for Rural Development for the use of its equipment and facilities in the conduct of project-related training and with the Center for Social Research for information and expertise that the project may need, either in the field or in its training activities.

5. Role of USAID/Philippines

Except as a major donor of the project, there will be a minimal role for USAID in the project implementation phase of this project. USAID/GOP will contract for a non-federal audit and program evaluation of the project.

B. CONSTRUCTION PROVISION

1. RDA Region VIII office will rennovate an existing building to build a second floor which can accomodate 36 persons. This will serve as the dormitory facility of HIREC in Villaba. It will be used primarily for farmer training purposes. HIREC is the center for upland FSR/E research, demonstration and legume tree seed production in the region. This facility will be financed from the GOP contribution.

ViSCA, with GOP budgetary support, will contract for the construction of a building for FARMI to house its administrative unit but will be used primarily for training purposes.

C. PROCUREMENT PLAN

Agricultural communication equipment and facilities to support the technology dissemination program in the amount of $17,750 will be procured from US source and origin. Supplemental books and periodicals budgetted at $20,000 for ViSCA will be supported by grant funds.

The Project through its representative at the Office of the Undersecretary for Regional Operation (OURO), RDA Central Office, will coordinate the procurement and shipment of these commodities to Region VIII.

In the dissemination program, the project will support provincial activities by repairing existing vehicles instead of purchasing new units.

D. MONITORING ACTIVITIES

Monitoring activities will be the responsibility of the Region VIII Director of Agriculture through its Monitoring and Evaluation section. This responsibility will be for both the DA and ViSCA project functions.

The first monitoring activity will be of the formulation of the annual work plans in the first three months of the project. Technical assistance will be procured from persons knowledgeable in the development of the project design to assist with the development of the work plans. This would aud to continuity and assist staff new to the project in understanding the concepts and functions presented in the project paper amendment.

Activities to be monitored early in the project are:

1. Implementation of Training for PAOs, MAOs and AFTs.
2. Initial steps being taken to institutionalize FSR/E in to the Regional Department of Agriculture.
3. Placing of participants in their local degree training programs.
4. Assistance to the agricultural college to develop FSR/E courses, participate in research and conduct local outreach programs from their respective companies.
5. Continued support for the SRMUs and their research and extension programs.
6. Publication of information reports from the project for local, national and international interests.

As cycle II of the project moves toward half completion the mid term evaluation will be conducted resulting in major monitoring activity to assure evaluation recommendations are being implemented as appropriate.

Mid to end of project monitoring will cover:

1. Response of farmers to training programs and technology introductions.

2. Usefulness of backup research activity and the economic and financial viability of recommended and adopted technologies.

3. Progress toward institutionalization of FSR/E at all levels of the RDA and ViSCA.

4. Activities of ViSCA, other agricultural colleges, PVO and NGO in FSR/E training, research, and dissemination

5. Progress toward accomplishment of project objectives and purposes.

6. Planing for final project evaluation and dissemination of results and lessons learned.

E Evaluation Schedule

1. Mid-term Evaluation: The Mid-term Evaluation is participating critical to project success. Much needs to be accomplished in the way of training and organization to assure being able to reach a large portion of the upland farmers and to provide for institutionalizing the concepts and methodologies of FSR/E. The extension emphasis has been initiated with the start of cycle II. To assure that all efforts are underway early in the project life the mid term evaluation should be between the 12th and 16th month. A team comprised of both local and foreign experts, all with FSR/E experience, and a majority with Region VIII experience, representing the disciplines of agronomy, economics, social science, tropical livestock, agricultural extension and education should be recruited for a 5 to 6 week period to conduct the evaluation. Four or five team members should be sufficient to represent the required disciplines.

2. A non-federal aduit will be conducted during the third year of the project.

$70,000 is budgeted for conducting the evaluation and the non federal audit and disseminating the findings as appropriate.

F. Proposed Implementation Schedule/Activities

Date	Major Activities	Responsibilities
August 1987	Mission/GOP approves PP.	GOP/USAID
September 1987	Request for short list of contractors interested in project.	USAID/ORAD
October 1987	Loan/grant agreement signed.	NEDA/USAID
October 1987	Short list provided and reviewed by GOP/USAID.	AID/W GOP/USAID
October 1987	Request for Proposals (RFP) issued by GOP for host country contract contingent on the availability of funds.	DA/USAID (review)
December 1987	Contractor proposals reviewed (60 days after RFP).	GOP/RDA/ ViSCA/USA
February 1988	Contractor selected, contract negotiated and signed.	GOP/ USAID/CSD
March 1988	L-T consultants arrive to set up operations.	TA/ViSCA/ RDA
March 1988	Financial contractor at Tacloban selected and system operational.	USAID/RDA
March 1988	Liaison, administrative and financial support staff at Office of the Under Secretary for Regional Operations (OURO) RDA Central Office in Manila briefed and in place.	OURO/RDA
March 1988	Project contractual staff all transferred and placed in permanent plantilla items.	RDA
March 1988	Technical assistance visits to SRMUs, pilot sites and selected extension field personnel started.	ViSCA
April 1988	Year 1 work plans completed and approved.	RDA/ViSCA/ TA
April 1988	Screen and identify participants (Ph.D., MS, non-degree training for two years).	GOP/TA

April 1988	Farm profile sheets and implementation guides completed.	SRMU/RDA
April 1988	ViSCA back-up research proposals submitted and acted upon by RDA.	ViSCA/RDA
April 1988	Second cycle of Mobile FSR/E training team (MTT) operations begins. First cycle completed by December 1987.	RDA/ViSCA/TA
May 1988	Second group of PAOs and provincial staff trained in the basic concepts of FSR/E. First cycle completed by December 1987.	RDA/TA
May 1988	First batch of farmer leaders from target areas brought to SRMU sites to visit demonstration farms.	SRMU/AFT/MAO
May 1988	First batch of FRTs trained on FSR/E methodology skills; Eight pilot sites identified and negotiations for their use by project completed.	FRT/SRMU/ViSCA
May 1988	Second group of MAOs and AFTs trained in FSR/E and extension methods.	RDA/TA
May 1988	ViSCA completes cross reference of FSR/E and related materials available on campus.	ViSCA
May 1988	AFTs and MAOs identify second set of target farmer environments and target farmers.	AFTs/MAOs
May 1988	Nurseries for the production and multiplication of seeds and planting materials for Jaro and Villaba established and materials distributed.	SRMU/PAO/MAO/AFT
June 1988	Second group of target farmers trained at SRMU site.	MAO/AFTs/SRMUs
June 1988	Teaching and mass media materials for contour hedges and enriched fallows produced and/or printed.	SRMU/ViSCA/RDA
June 1988	Outreach training to cooperating agricultural schools and dissemination activities arranged and completed.	ViSCA/Ag. Schools/SRMU

ANNEX A

PID APPROVAL CABLE

INCOMING
Amembassy, MANILA

TELEGRAM CN: 32664

ANNEX 1
(page 1 of 4)

UNCLASSIFIED
Classification

ACTION: ID-10

INFO: AMB DCM POL POLR CONS DAO ECOM LGAT LO ADM USIS CPRP JMAC CEBU AID ADB AGR B&F RMO GSO THU DEA PER RSO RSC ATO RCO CRO TSO CRU CY/I

	DIV	ACT	INF
	DIR		✓
	PLA		
	AR		✓
	PG		
	TV		
	FA		
	CED		
	GSO		
	DRC		
	CON		
	SO		✓
	GSO	✓	✓
	ACS		
	TSO		
	MLM		
	NTR		
	POP		
	CLRD		
	RS		
	AGRIA		
	TRV		

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BT
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E.O. 12065: N/A

Ltr - 11-24-80

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 CONSTRAINTS, SUCH AS (POSSIBLY) THE ORGANIZATION OF COOPERATIVES, THE

UNCLASSIFIED
Classification

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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, IRRI, 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 LAND 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 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.

IEE NEGATIVE DETERMINATION IS ACCEPTED PROVIDED THAT THE PP DESIGN TEAM INCLUDES SOMEONE TO ADDRESS QUESTIONS OF HERBICIDE AID 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.

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

Annex 1

NARRATIVE SUMMARY	OBJ. VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes: (A-1) To improve the livelihood of limited resource farmers on selected rainfed upland areas of Region VIII	Measures of Goal Achievement: (A-2) 1. Increases in productivity of labor employed on farm. 2. Increase in consumption levels of farm grown products. 3. Increase in levels or marketable surplus produced on the farm. 4. Increased consumption of consumer goods and services.	(A-3) 1. More labor available for cash earning from off farm employment 2. FSR/E staff household economic survey 3. Market surveys of FSR/E high impact areas. 4. Evidence of consumer goods used and school attendance records.	Assumptions for achieving goal targets: (A-4) 1. Increased production and income derived from improved farming systems will benefit primarily farm households adopting those systems. 2. Institutionalization of project activities will support spread of technology. 3. GOP follows suitable policies relating to markets, investments, production, extension, research, etc., including price, sectoral allocation, etc. 4. Increased income will be spent on consumer goods and services.
Project Purpose: (B-1) 1. Identify, adapt and disseminate financially profitable and environmentally sustainable technologies appropriate to the target Farmer Environment (TFE) 2. Strengthen & institutionalize the Farming Systems Research & Extension Mechanism for providing rainfed agricultural technologies to the resource conditions found in the hilly areas of Region VIII	Conditions that will indicate purpose has been achieved: End-of Proj. status (B-2) 1. Improved rainfed farming systems (crop and animal) being tested and selected for Area-wide replication. 2. a. Farming systems team at ViSCA providing technical support to research mgt. units functioning in the field and conducting on-campus trials and training b. Regional, provincial and municipal staff participating in res. and ext. units and providing technical/administrative support for FSR/E. 3. Farm households utilizing all or part of newly introduced technologies.	(B-3) 1. Evaluation 2. Farm Level Surveys 3. Interviews with reports of regional DA and ViSCA staff.	Assumptions for achieving purposes: (B-4) 1. The DA Region VIII office, with the assisstance of ViSCA, will coordinate and provide the project with adequate personnel from their respective staffs. 2. Farmers in target environments will adopt technologies useful & appropriate to their needs.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Annex 1

NARRATIVE SUMMARY	OBJ. VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Outputs (C-1)	Magnitude of Outputs (C-2)	(C-3)	Assumptions for achieving Output (C-4)
1. Target farmer are adapting DA and ViSCA tested and recommended technologies resulting in increased profitability of their farming enterprises.	1. a. 3-4 new technologies tested and disseminated each year of project b. 760 farmers cooperators in yr.1 3,870 yr.2 10,000, yr. 3	1. DA, PDO, ViSCA & Ag. College records and staff interviews. 2. Project reports & evaluations.	1. Appropriate demonstration areas and farmer-cooperators can be found. 2. Trained persons return to sector and function productively.
2. FSR/E methodology and philosophy reflected in regular activities of all levels of Regional DA staff servicing TFE.	2. a. 900 DA staff at appropriate levels trained by yr.2 1,400 trained yr. 3 b. Proj. functions & staff integrated into regular DA complement by year 2.		3. Suitable price/incentive environment exists to induce adoption. 4. Required staffing and budget are supplied by entities involved.
3. ViSCA/FARMI have demonstrable capability in FSR/E training, res. & formal teaching and working relationships with entities they service.	3. a. V/F manage 3 summer short courses 3 national and 1 international seminar on FSR/E		
4. Other Ag. Colleges, and PVO/NGO farmer training centers providing FSR/E training to students and farmers.	b. Assist 4 Reg. Ag. Colleges with FSR/E curriculum & training development c. Conduct 15 research support projects on FSR/E technologies.		
	4. a. Six entities conducting formal courses and off campus training on FSR/E b. 40 students and 600 farmers trained per year.		

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Annex 1

NARRATIVE SUMMARY	OBJ. VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Inputs (D-1)	Implementation Target (Type and Quantity) (D-2)	(D-3)	Assumption for providing inputs (D-4)
	TA (1) Long Term (2) Short Term a. Foreign 38 pm a. Local 12 pm over LOP Commodities: (1) Library Materials (2) Lab/Field Equipment (3) Motorcycles (6) Participant Training (1) 2 MS abroad (2) 11 MS local (3) 6 FSR/E symposia in USA (4) 24 Asian seminars and workshops Project Inputs: (1) Training Funds (2) Planting Materials (3) MOE Costs	1. USAID records 2. DA and ViSCA records	1. Sufficient numbers of quality technical assistance personnel are available, willing, and able to work in isolated field situations.

	AID ($000)	GOP ($000)
Tech. Assistance	561	10
Commodities	44	200
Participant Training	131	30
Project Input Support	924	974
Evaluation	70	0
Total	1729	1214
Inflation	280	(included)
Total	2009	1214
Grand Total	3223	

ANNEX C

SOCIAL SOUNDNESS ANALYSIS

C (1)

Land Tenure Arrangements and Criteria for Farmer-Cooperator selection

Annex C (1)

LAND TENURE ARRANGEMENTS AND CRITERIA FOR FARMER-COOPERATOR SELECTION

Land tenure is an extremely complex mixture of overlaping systems throughout most of Region VIII. While there appear to be three general categories of land tenure -- owner-operator, lease holder and tenant, it must be remembered any single farmer is likely to participate to some extent in several systems at the same time. He may own and cultivate some land, work as a tenant on other parcels and also be a landlord to tenants who work other plots that he owns.

These different systems are further dissected by the wide range of cropping systems. The particular combination of crops results in a range of different sharing agreements depending on the tenancy arrangement under which they are grown.

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

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 is planted in coconuts. These estimates to not, however, make allowance for the substantial areas of other complementary crops that are grown under or adjacent to coconut plantations. Likewise, these figures do not take into account the size of the parcel and the ownership/tenure status which influences the mixture of crops grown on a particular plot of land. 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 for their family subsistence and the local market. They may be described as tenants-at-will rather than landless laborers. 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 coconuts into copra, and harvesting and hauling are usually paid for on a wage or piece-rate basis. In so far as other landless laborers participate in

this employment they may get limited privileges to use coconut lands to plant crops for household consumption.

2. There is a predominance of dry uplands in Region VIII that are planted to a wide range of crops: corn, upland rice, and various tree crops. An important feature of upland production is the high variability of yields and the risk of crop failure. The difficulties of access to upland areas and the relatively low productivity have encouraged the development of special tenancy arrangements in these areas. Not only does the landowner take a share in the product, he also shoulders a share of the risks. Thus, share tenancy prevails in the upland rice and corn areas inspite of attempts to implement agrarian reform programs that dictate conversion of share tenancy to leasehold arrangements with fixed payments.

3. There are considerable area of hilly or mountainous terrain in the region. Many of these areas are inaccessible and/or uncultivable. Where cultivation is possible and access is open, cultivation has moved through a process of first harvest of timber (with or without formal timber land leases) followed by kaingin (slash and burn) clearing of other vegetation and the planting of food, root and banana crops for subsistance consumption of the kaingero households. In some areas, pasture leases have been extended and livestock ranches established and run on a relatively extensive bases.

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 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 rights or title. There are government regulations that govern ownership and use rights to these lands (the pasture and timber concession laws and decrees, the Bureau of Forest Development administered laws and decrees, etc.) but these are not effective in providing either equitable rights to secure land use or preventing degradation of the natural resources base (through soil erosion, siltation and run-off).

These features of topography, land tenure/land use and cropping patterns have been taken into account in the original project design and the subsequent selection of technologies and target farmers.

i) In specifiying promising agro-climatic zones and corres- ponding primary crop or crops, the project has concentrated exclusively on the upland rainfed areas. Timber and pasture lands were excluded because the large scale ownership basis under which are are controlled and operated is not consistent with the project's small farmer beneficiary focus.

Further, the specification of primary crops was done in terms of the complementary crops which are grown under or adjacent to the coconuts or other major plantation crops by small farmer tenant caretakers and landless tenants-at-will.

ii) In the selection of municipalities for project sites, some areas were rejected because it was felt that the prevailing land ownership patterns or histories of land disputes would compromise the benefits of the project to small farmers.

iii) In establishing criteria for the selection of farmer cooperators the prevalency of share tenancy arragements throughout the upland zones and project sites was recognized. It was not possible, nor would it have been consistent with the objectives of the project to restrict cooperators to owner/operators. Consequently, a wide range of land tenure arrangements are represented among the present project farmer cooperators.

In the selection of barangay sites and farmer cooperators for pilot production and testing the project needs also to considerate the following factors:

a. 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-cooperative), agrarian reform beneficiaries associations, farmer 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.

b. The presence of vocational educational institutions, 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.

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 municiplaities 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 predefine 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 elaticities 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, if 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 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 utilised, unless arrangements could be worked out whereby return for this additional effort went in substantial part to the tenant farmers. Iffsuhh 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 to 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 participators.

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 these 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 KASAKA 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 constituting the municipalities of San Isidro, Calubian, Tabango, and the northern parts of Villaba 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 basin 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 KABSAKA 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,bboth 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 specialise 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 bridgeon the Samar side. Interior areas of the municipality have experienced some security problems.

8. Pinabacdao - 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.

10 & 11 - 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 SERU'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

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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 recognised 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.

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

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[4] 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[5], 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 then 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 considred 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 considrable 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 amortising 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 hacienderos, 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 amortising 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 SEMU team stationed in San Isidro might have to do a lot of tracking 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: -

Primary Crop	Major Complementary Crop(s)	Municipality
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

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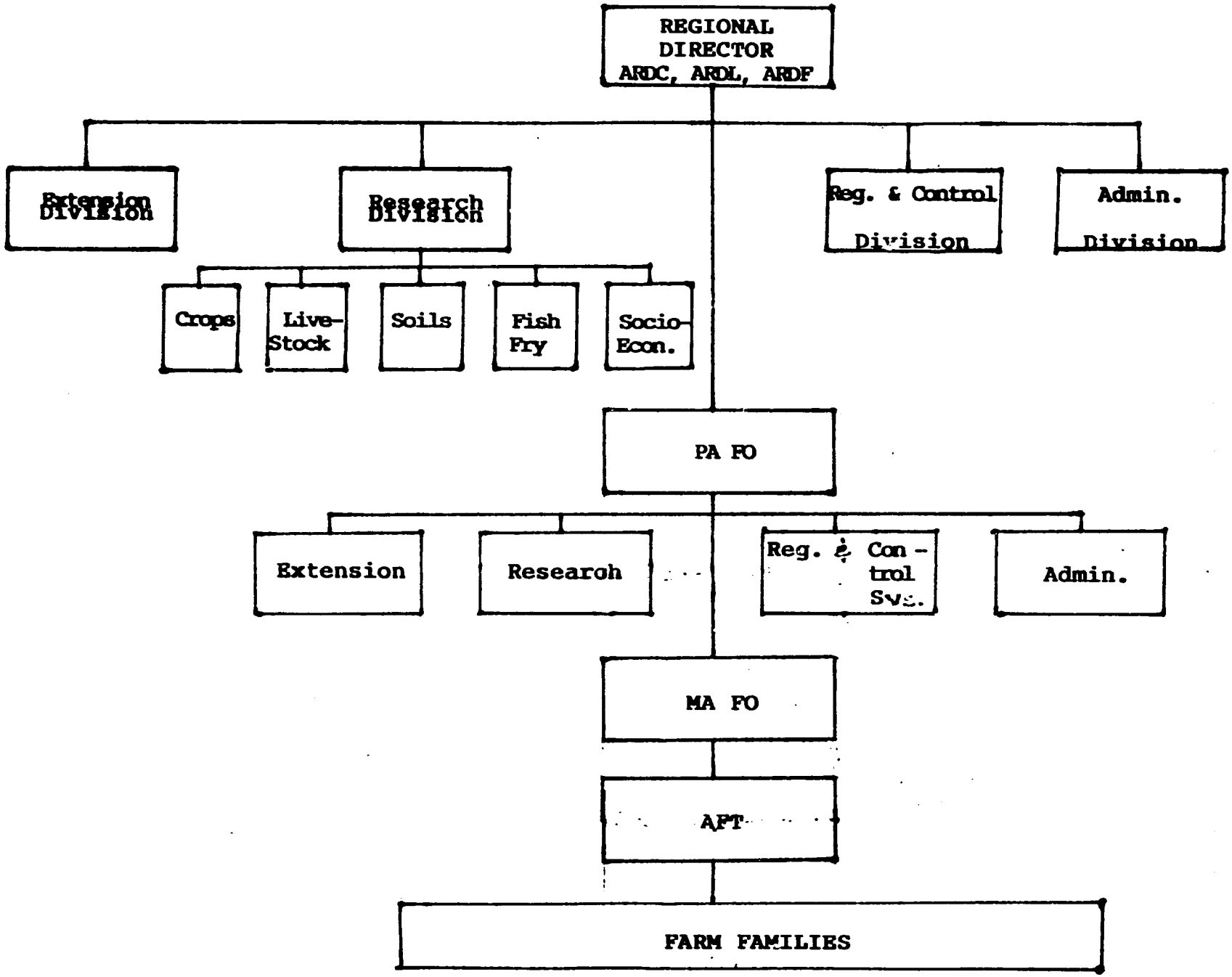
ANNEX D

ORGANIZATIONAL CHARTS

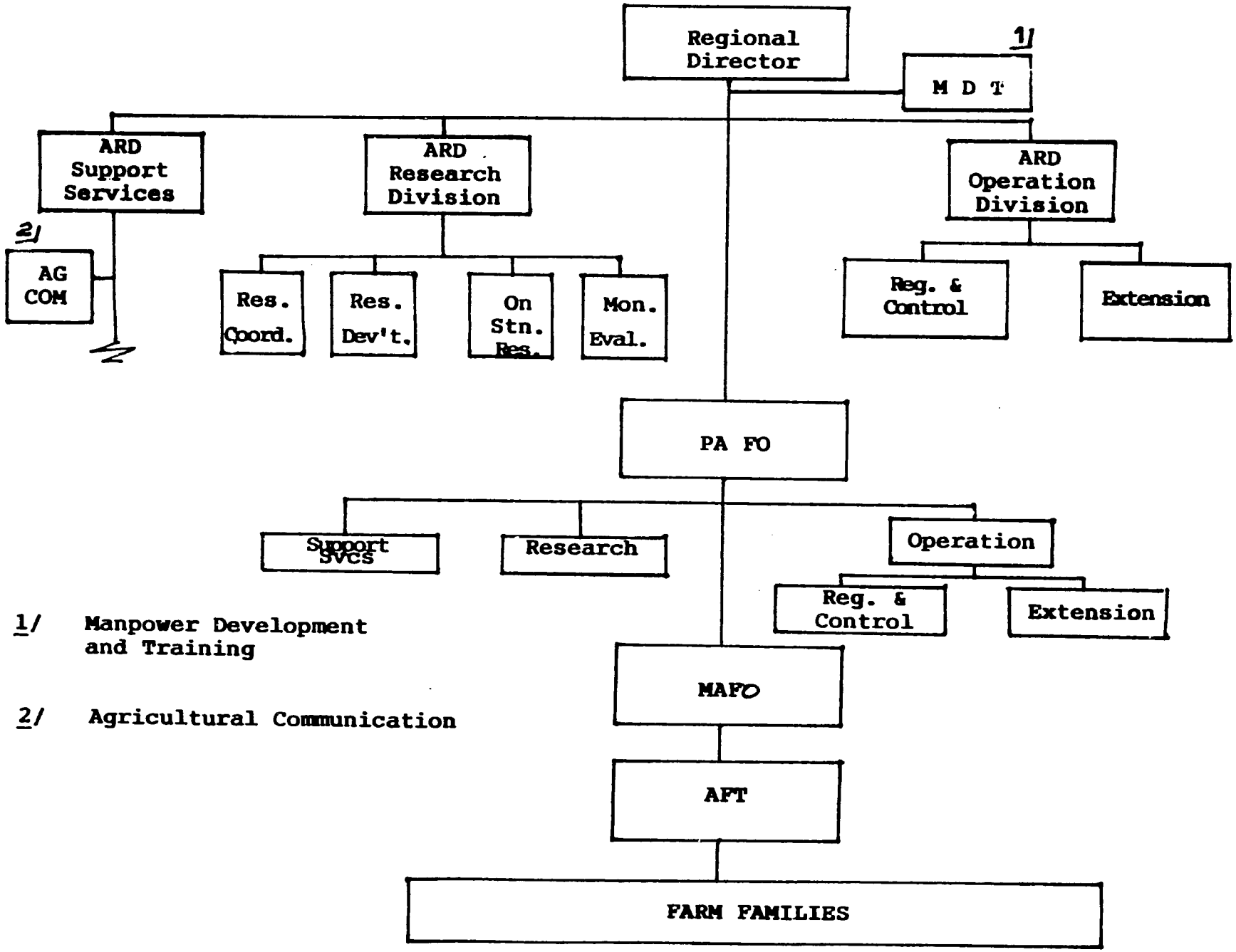
AND

FUNCTIONAL DESCRIPTIONS

EXISTING MAF ORGANIZATIONAL CHART REGION VIII

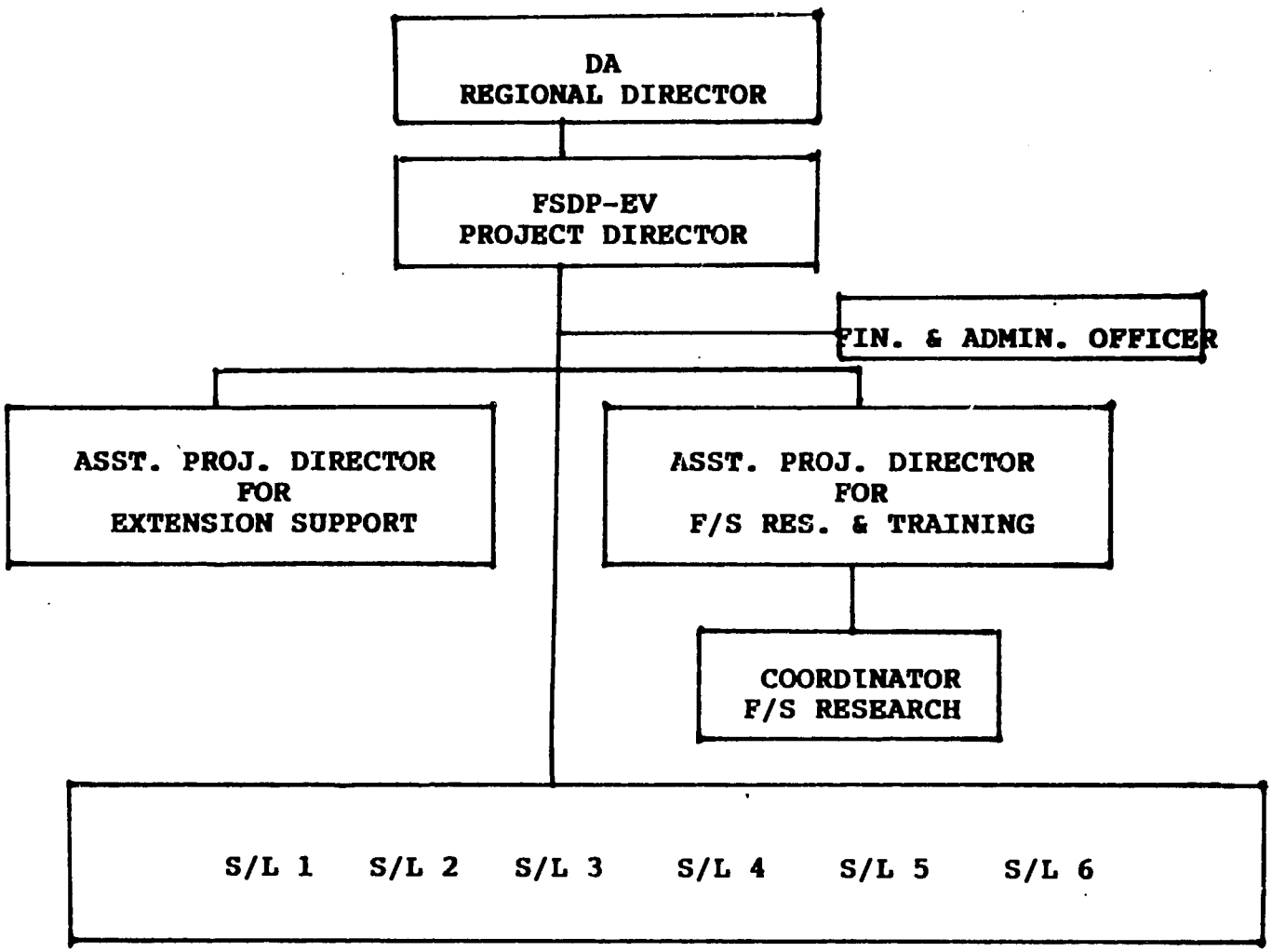


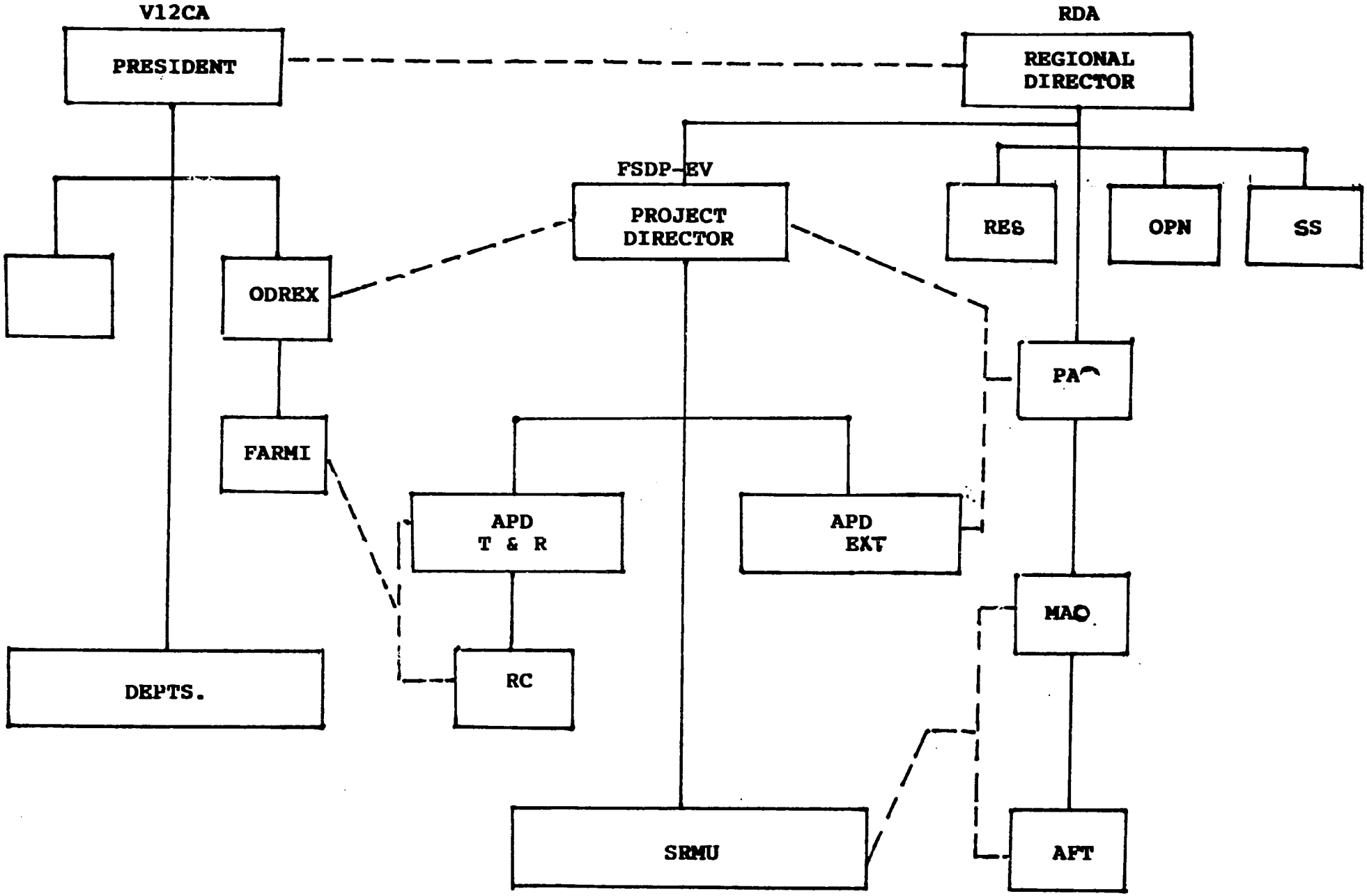
PROPOSED ORGANIZATIONAL STRUCTURE DA REGION VIII JUNE 1987



1/ Manpower Development and Training

2/ Agricultural Communication


DA
REGIONAL DIRECTOR
FSDP-EV
PROJECT DIRECTOR
FIN. & ADMIN. OFFICER
ASST. PROJ. DIRECTOR
FOR
EXTENSION SUPPORT
ASST. PROJ. DIRECTOR
FOR
F/S RES. & TRAINING
COORDINATOR
F/S RESEARCH
S/L 1
S/L 2
S/L 3
S/L 4
S/L 5
S/L 6



INSTITUTIONAL LINKAGES OF THE FSDP-EV PROJECT AT VARIOUS LEVELS OF RDA & V12CA

Annex D
Responsibilities of FSDP/EV Officers and Staff

DA REGIONAL DIRECTION, REGION VIII

1. Formulates policies, rules and guidelines for the coordination and implementation of cycle II project activiites.
2. Conducts periodic assessment of the project for possible redirection and policy changes.
3. Plans, organizes, leads and controls the implementation of the dissemination of project-generated technologies in the various FTEs in the region.
4. Plans, organizes and executes the implementation of various measures recommended to fully institutionalize the farming systems approach to development in the region.

PROJECT DIRECTOR

1. Implements the policies, rules and guidelines approved by the Regional Director.
2. Selects, recruits, and obtains the professional services of personnel as deemed necessary for the project and likewise terminates and/or obtains replacements as necessary.
3. Submits periodic reports and recommendations to the Regional Director for appropriate action.
4. Coordinates with RDA regional, provincial and municipal officers and staffs and with other agencies (public and private) whose operations ahve an involvement in project activities.
5. Makes visits to and assesses SRMU sites, pilot sites, and outreach areas.
6. Plans, organizes and implements various promotional programs to make the public aware of project activities and accomplishments.

ASSISTANT PROJECT DIRECTOR FOR TRAINING AND RESEARCH

1. Plans, organizes, coordinates, and implements summer short course, mobile training and other training programs with RDA training staff, VISCA/FARMI and other institutions.
2. Monitors and evaluates project related trainings.
3. Provides and monitors funding to project related training.
4. Assists site staff in the implementation of on-farm research activities.
5. Provides necessary technical support to the different SRMUs, pilot sites and seed/planting material nurseries and multiplication plots.

ASSISTANT PROJECT DIRECTOR FOR EXTENSION

1. Implements the prototype stage of extension.
2. Develops extension/training materials (farm profile, video,

text, monitoring form) to support the dissemination of project-generated technologies to TFEs in the region.
3. Plans, organizes, assists and coordinates with the agricultural communication unit of the RDA in preparing extension and mass media materials.
4. Plans, organizes and coordinates with the provincial officers of the RDA on the activities of the on-farm research team in piloting technology kits, producing seeds and planting materials distribution and outreach dissemination of recommended technologies.
5. Coordinates with OFR teams in identifying with VISCA farm problems that require back-up research.

FINANCE AND ADMINISTRATIVE OFFICER

1. Provides adequate financial and administrative support to cycle II project activities.
2. Exercises day-to-day administrative and supervisory function over the project staff including those assigned to perform support activities at the OURO,DA Central Office in Metro Manila.
3. Coordinates the preparation of budgets to insure adequate and timely funding of project activities.

RESEARCH COORDINATOR

1. Assists the Assistant Project Director for Training and Research in the planning, organization, supervision and control of research activities in all SRMU and pilot sites.
2. Monitors, organizes and prepares reports on completed research.
3. Coordinates liaison with VISCA in the planning, organization, funding, reporting and evaluation of back-up research of the project.
4. Coordinates the packaging of SRMU-generated technologies.
5. Coordinates and liaison with VISCA/FARMI in the planning and evaluation of technical assisteance required by the project.

SITE LEADER

1. Plans with the site staff all activities of the SRMU.
2. Coordiantes and supervises the implementation of the on-site research proposal on FSR.
3. Evaluates regularly researches/trials conducted on-site.
4. Submits monthly reports to the office of the Project Director and other reports.
5. Exercises day-to-day administrative and supervisory functions over project site staff.
5. Reviews research proposals submitted by on-site researchers and from other research institutions.
6. Conducts on-site research.

SITE CLERK

1. Procures required inputs and other needs of the project.
2. Provides clerical and other support services to field staff.

SITE RESEARCH (AGRONOMIST)

1. Assits the site leader in planning FSR/E activities.
2. Submits monthly report to the site leader.
3. Formulates and conducts crop research in consultation with other site staff.
4. Gathers and analyzes data on crops research for compilation and submission to the site leader.
5. Assists site leader in the review of research proposals.
6. Assists in documenting FSR/E activities.
7. Monitors crop research and on site activities.
8. Acts as the liaison officer between the project and the farmers.
9. Assists in the conduct of training, fieldtrips and meetings.

ECONOMIST

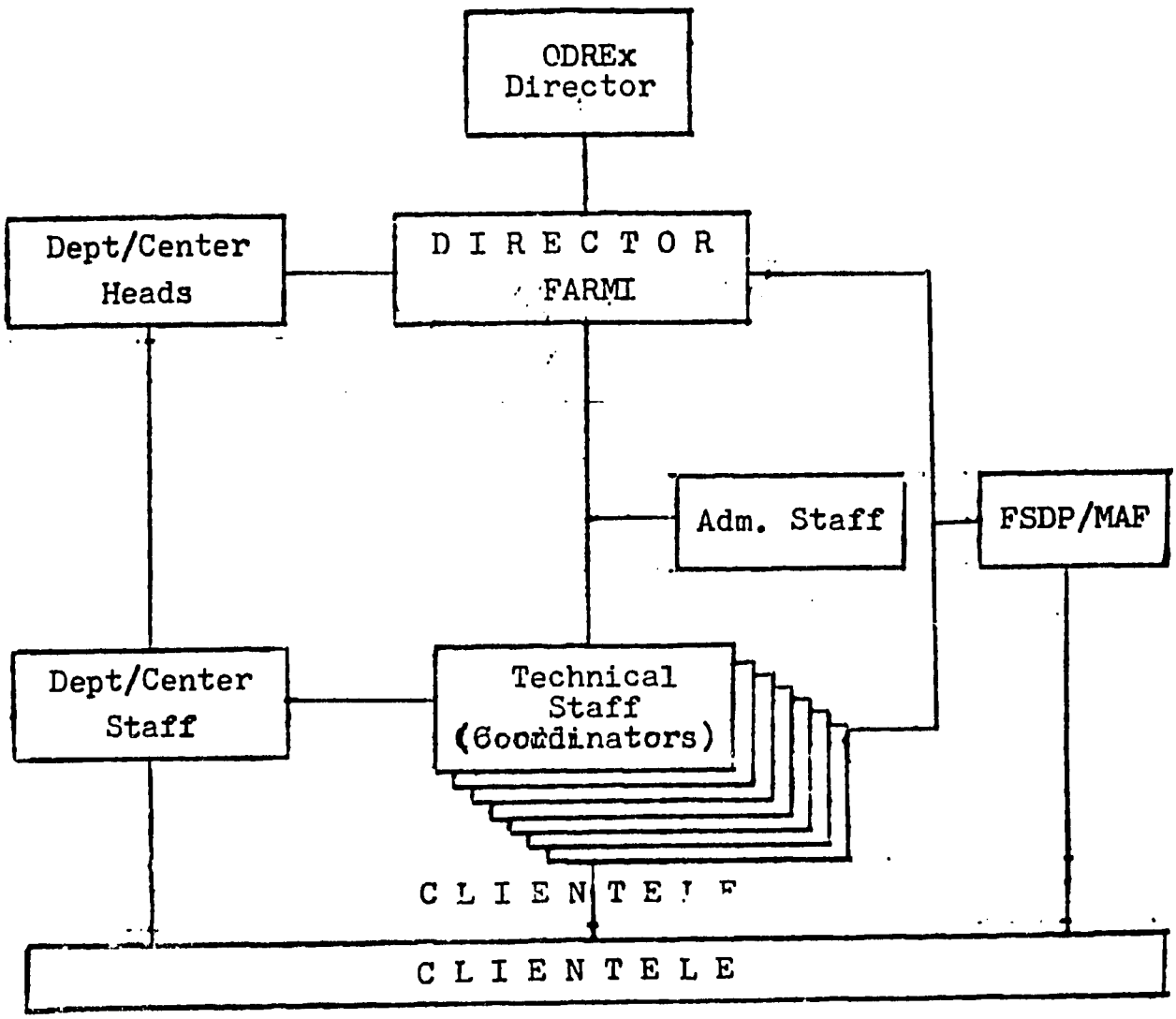
1. Assists in planning site activities.
2. Submits monthly reports to site leader.
3. Formulates and conducts socio-economic research in consultation with other site staff.
4. Monitors/gathers, compiles and analyzes on-site socio-economic research.
5. Undertakes documentation of selected site activities in coordination with economic researcher I.
6. Assists in conduct of training, fieldtrips and meetings.

ECONOMIC RESEARCH II (LIVESTOCK SPECIALIST)

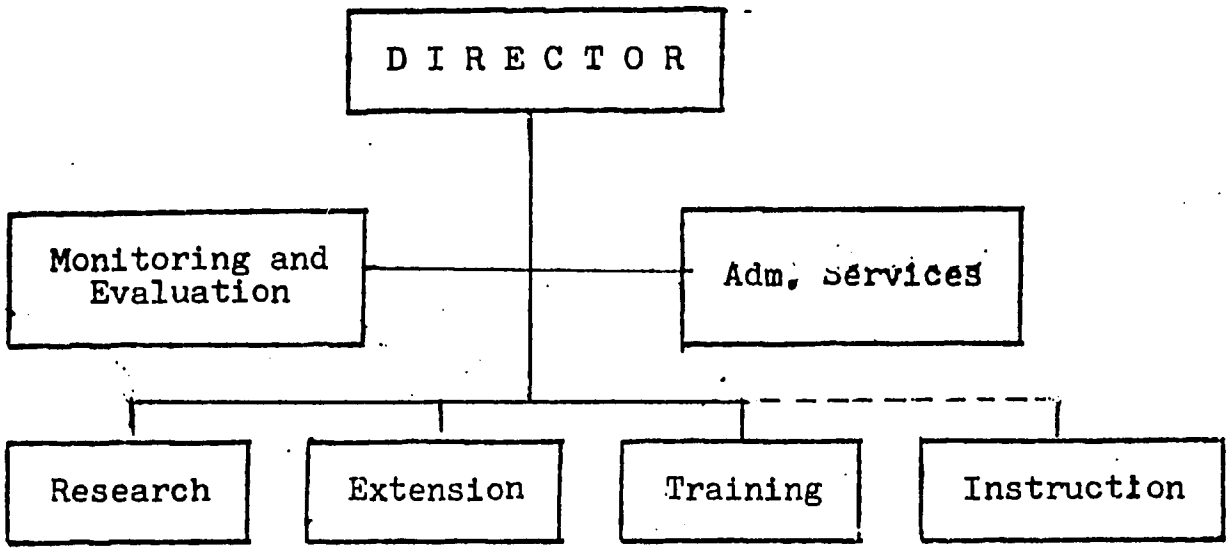
1. Assists in planning site activities.
2. Submits monthly reports to site leader.
3. Formulates and conducts livestock research in consultation with the staff.
4. Monitors/gathers, compiles and analyzes data of site livestock research.
5. Coordinates with site economist in the conduct of economic analysis of livestock research.

ECONOMIC RESEARCHER I

1. Assists in planning site activities.
2. Prepares and submits monthly reports to site leader.
3. Formulates and conducts social impact assessment of on-site generated technology in consultation with other site staff.
4. Coordinates and assists in gathering, compiling and analyzing data from on-site research.



~~Figure 2.~~ ORGANIZATIONAL STRUCTURE OF FARM AND RESOURCE MANAGEMENT INSTITUTE (FARMI)



-Socio Economics
-Crop-livestock integration
-Interdisciplinary and inter-departmental projects
-Project development
-Project coordination

-Tech. packaging
-Tech. dissemination
-Publication

-Staff training
-Farmers training
-Change agents training
-Student training

-Major courses
-Service courses

~~Figure 3.~~ FUNCTIONAL STRUCTURE OF FARMI

ANNEX E

LONG-TERM POTENTIAL FOR ADOPTION OF CONTOUR HEDGEROWNS AND ENRICHED FALLOW TECHNOLOGIES

ANNEX E

Long-Term Potential for Adoption of Contour Hedgerow and Enriched Fallow Technologies in Region VIII

1. Land Use

.	Total Upland Area	-	69,949 has.
	Corn Area	- 53,766 has.	
	Upland Rice Area	- 16,150 has.	
	Total No. of households		29,000
2.	Total kaingin Area (1)	-	33,573 has.
	Leyte	- 8,577 has.	
	S. Leyte	-..4,017 has.	
	Samar	- 8,830 has.	
	N. Samar	- 4,574 has.	
	E. Samar	- 7,575 has.	
	Total No. of households	-	20,000
3.	Coconut Area	-	287,500 has.
	Total No. of Households	-	115,000
4.	Others	-	156,000 has.
5.	TOTAL NO. OF HOUSEHOLDS	-	320,000

B. Potential

Technology		Area(has)	Assumptions
1. Contour hedgerow	upland	49,000	Generally hillylands with only 70% of the a area feasible for . contouring
	kaingin	33,573	The entire area has potential for tree-crop contouring.
	Total area	82,573 has.	

---

(1) These are occupied forested areas with an average of 5 years fallow period.

Source:
Hopgood, T.D., Poverty Profile of Eastern Visayas, Sept. 1982.

Technology	Area (has.)		Assumptions
2. Enriched fallow	Upland -	35,000	About 50% is fallowed at any one time. Fallow period is 2 years.
	Kaingin -	16,750	About 50% of the fallowed area is cogonal which could be replaced by kudzu or centrosema; 30% are with 2nd growth growth forest and only 13% is cultivated at any one time.
	Coconut -	62,500	Only 30%is cultivated for annual crops, of which 75% is fallowed and only 25% is planted at any one time
	Total Area	144,250 has.	

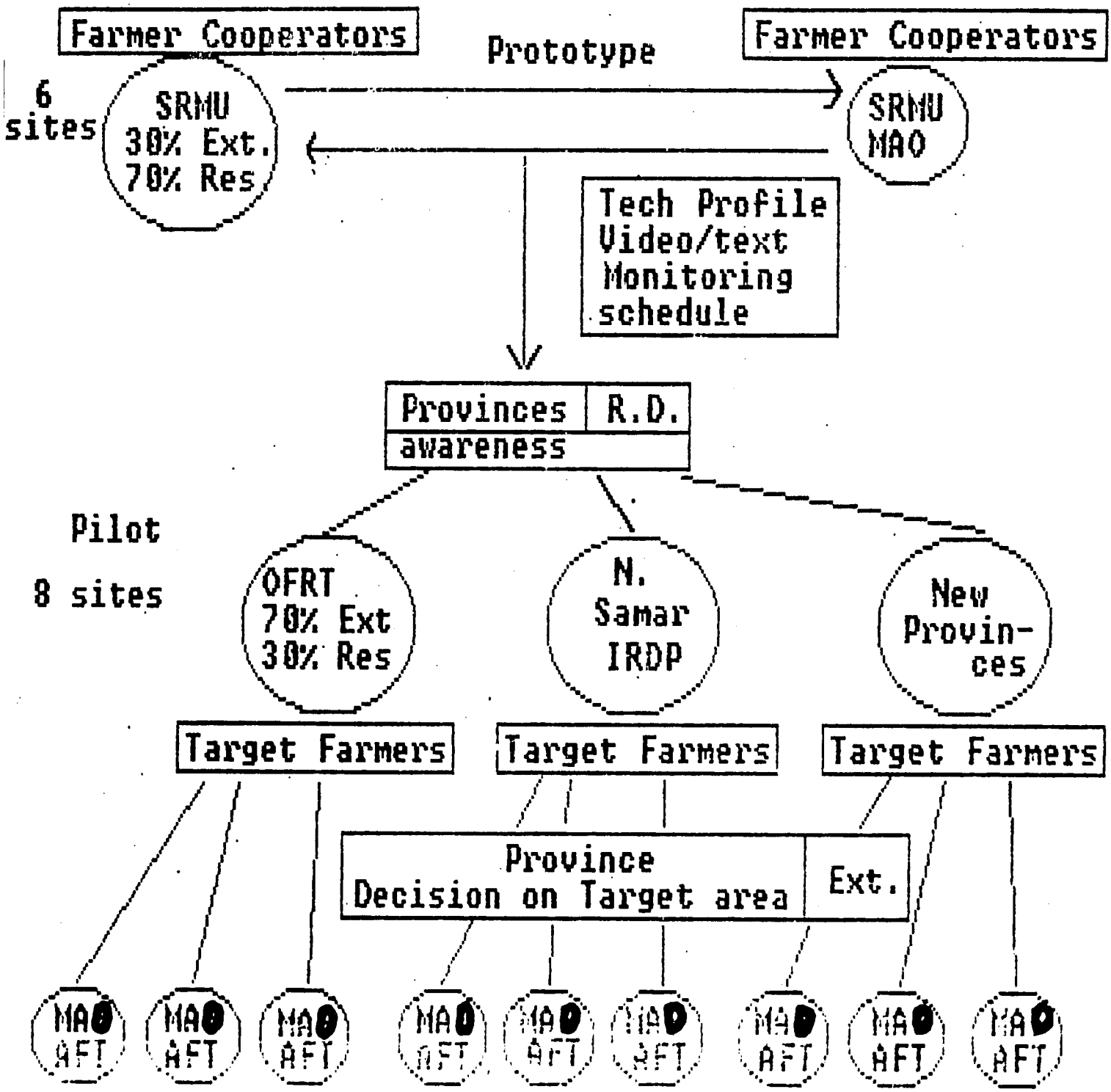
ANNEX F

ADOPTION STRATEGIES

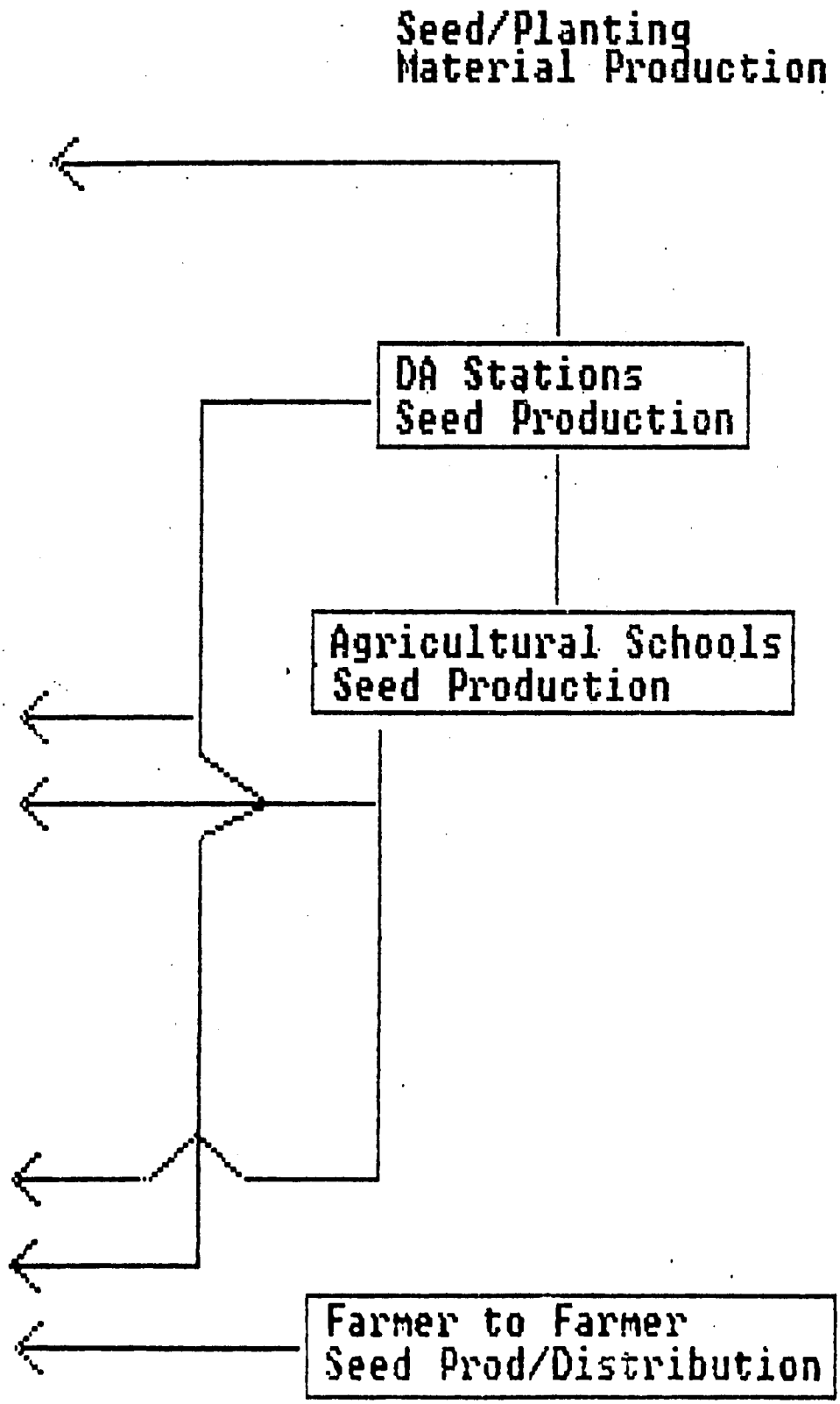
AND

TARGETS

Department of Agriculture
Farming Systems Extension Strategy
FSDP/Eastern Visayas
DISSEMINATION STRATEGY



Outreach


Seed/Planting
Material Production
DA Stations
Seed Production
Agricultural Schools
Seed Production
Farmer to Farmer
Seed Prod/Distribution

Annex F

Dissemination Targets for Cycle II FSDP/EV

Technology	No. of Households/Location Year 1	Year 2.	Year 3
1. Hedgerow contour	480 Villaba	1500 Villaba Maasin San Isidro	2900 Leyte S. Leyte N. Samar
2. Enriched fallow	90 Jaro	990 Jaro E. Samar area Biliran	2300 Jaro W. Samar area N. Samar
3. Live mulch		90 Basey	1000 Basey area S. Leyte area
4. Cogon rehab.	90 Gandara	1000 Matalom Bato	2200 W. Samar area S. Leyte area
5. Liming		100 Matalom Bato	400 S. Leyte area
6. Chesse making		100 Gandara	300 Gandara Carigara
7. Carabao supp.		90 Gandara	900 Leyte W. Samar
TOTAL PER YEAR	760	3,870	10.000

ANNEX G

RDA STATIONS AND REGIONAL AGRICULTURAL COLLEGES

Annex G

Department of Agriculture Stations and Agricultural Colleges in Region VIII

Department of Agriculture Stations

A. Crops Stations

1. Abuyog Experiment Station	- Abuyog, Leyte
2. Romualdez Experiment Station	- Babatngon, Leyte
3. HIREC	- Villaba, Leyte
4. Salcedo Seed Farm	- Salcedo, E. Samar
5. Gandara Seed Farm	- San Jorge, Samar

B. Livestock Stations

1. Caray-caray stockfarm (carabao)	- San Miguel, Leyte
2. Sogod Stockfarm (sheep)	-. Sogod, S. Leyte
3. Malitbog Sheep and Goat Research and Production Center	- Malitbog, S. Leyte
4. Kananga Breeding Station	-.Kananga, Leyte
5. Gandara Breeding Station (Murrah Buffalo)	- Gandara, Samar

C. Agricultural Colleges

1. VISCA	- Baybay, Leyte
2. Palompon Institute of Technology	- Palompon, Leyte
3. Leyte National Agricultural College	- Villaba, Leyte
4. Alang-alang Agro-Industrial School	- Alang-alang, Leyte
5. Bato School of Fisheries	- Bato, Leyte
6. Leyte-leyte National Agricultural College	- Leyte, Leyte
7. Biliran National Agricultural College	- Biliran Subprov.
8. RKK Memorial Ag.& Fisheries Tech. Inst.	- Bontoc, S Leyte
9. Samar National Agricultural School	- San Jorge, Samar
10. Basey National Agricultural School	- Basey, Samar
11. Catbalogan Regional School of Fisheries	- Catbalogan, Samar
12. University of Eastern Philippines	- Catarman, N. Samar
13. Pedro Rebadulla Memorial Ag. School	- Catubic, N. Samar
14. Eastern Samar National Ag. College	- Borongan, E. Samar
15. Salcedo National Agricultural College	- Salcedo, E. Samar
16. Can-avid National Agricultural School	-.Can-Avid, E. Samar

ANNEX H

TECHNICAL ASSISTANCE

REQUIREMENTS AND SCOPE OF SERVICES

Annex H

Technical Assistance Requirement/Scope of Services

I. Adult Education and Training Specialist

Lenght of assignment: 14 person months

Location of assignment: Visayas State College of Agriculture (ViSCA) Baybay, Leyte.

Duties: Provide technical assistance to the staff of the ViSCA Farm Resource Management Institute (FARMI), the Center for Social Research (CSR) and the Department of Agriculture Regional Manpower Training Center Unit in the following areas:

A. Alternative instructional methods
B. Training needs assessment
C. Planning of training programs
D. Training evaluation and follow-up
E. Farming systems extension methods
F. Learning guide skills

Requirements: M.S. degree in education, agricultural education, agricultural extension or related field with 5 years work experience; overseas training experience and knowledge of the Farming Systems Research and Extension (FSR/E) methodology. Demonstrated ability in cross cultural skills and productive relations with host country nationals..

II. Marketing/Financial Analysis Specialist (local short-term)

Length of Assignment: 12 person months over life of project

Location: Regional Department of Agriculture, Tacloban, Leyte and VISCA,Baybay, Leyte.

Duties: Provide short-term technical assistance to ViSCA faculty and FSDP-EV Project Site Research Management Unit (SRMU) staff in the following areas:

A. collection and analysis of household activity/enterprise data;
B. cost benefit analysis of alternative production and cash generating activities.
C. Labor/time allocation studies
D. Role of women and children
E. Market analysis and development of household products.

Requirements: M.S. degree in sociology, economics, marketing,

anthropology, extension or related field. Two years of experience focused on village and micro-level research with emphasis on cottage industry and/or analysis of off-farm labor and household income flow. Experience in farm household enterprise survey and analysis, farm budgeting and cost benefit analysis. Demonstrated cross cultural/skills and productive relations with host country nationals.

III. Farming Systems Research and Extension Specialist, Chief of Party

Length of Assignment: 24 person months

Location: Regional Department of Agriculture, Tacloban, Leyte

Duties: Provide technical assistance to the FSDP-EV Project Director's Office Staff, the Site Research Management Unit (SRMU) and Faculty of the Visayas State College of Agriculture (ViSCA) in the following areas:

A. FSR/E Methodology
B. Integration of socio-economic and biological/production data
C. On-farm trial design
D. Data Analysis
E. Process documentation
F. Development of interdisciplinary approach to problem identification/solutions

Requirements: Ph.D. in a discipline related to one or more of the technical assistance areas; at least 5 years post graduate experience with 2 years experience on a project employing the farming systems research and extension methodology or comparable experience or an interdisciplinary development activity; basic understanding of FSR/E methods and experience working with the disciplines of agronomy, animal science, agricultural economics, rural sociology/anthropology, extension Two years experience in project management in a developing country. Demonstrated cross cultural skills and productive relations with host country nationals.

ANNEX I

PARTICIPANT TRAINING PLAN

Annex I

Participant Training

Specific Fields or Disciplines to be Attended by Participant Trainees Sponsored Under FSDP-EV Cycle II,

I. Degree Programs (7 slots)	Implementing Agency
A. Doctoral Programs - 2 slots 3 years in the Philippines	
1. Agronomy	VISCA
2. Ag. Extension	VISCA
B. Masteral Programs - 11 slots (2 years in the Philippines)	
1. Animal Science	VISCA
2. Ag. Economics (2)	VISCA
3. Ag. Engineering	VISCA
4. Ag. Extension	VISCA
5. Marketing and Finance (2)	RDA
6. Adult Education (2)	RDA
7. Management (2)	RDA

ANNEX J

WOMEN IN DEVELOPMENT CONCERNS

Annex J

Women in Development Concerns

I. Background

Upland rainfed agriculture in the Philippines is conducted as part of a complex multi-enterprise family based production system. Shifting areas of cultivation, as well as shifting family composition, mean that often labor, rather than land, is the constraining variable. Further, unstable or unclear land tenure arrangements often make concentration on the male-based subsistence agricultural system -- or a cash cropping system, based on male labor -- extremely risky. Finally, the ecology of the project area, which includes unreliable and erratic rainfall, steep slopes, few access roads, and erosion-prone soil, as well as location in a typhoon belt, increases the risk of dependence on any one enterprise. Increasing the productivity of such a system -- and as a result the level of living of the families dependent upon it -- requires analysis of the whole farm, including all the enterprises, disaggregated by age, sex, and household relationship. Only by such whole farm analysis, which allows identification of the separate enterprises and their interrelationships with each other, can constraints be identified, technology (which includes social organization and policy changes) to overcome these constraints be identified and tested, and key characteristics of the farming system identified so that such solutions can be extended to similar target farming families.

Farming systems in the upland rainfed areas are much more complex than the irrigated areas of the Philippines. In part, the development of that complexity is to reduce risk. Not only are the cropping systems complex and variable, as soil fertility and moisture conditions vary on a year-by-year basis, but the cropping systems are oriented more to subsistence production than to market stimuli. However, the use of slash and burn agricultural techniques (the kaingin system) aimed at producing food primarily for home use does not mean that the family survival strategy is based on consuming only what is produced on the cultivated area. Rather, the farm families in the upland agricultural areas are linked to the cash economy through the seasonal sale of their labor, often in lowland rice production, the sale of products that they gather and add value to from the forested or fallow areas, including charcoal, firewood, tuba, an alcoholic drink collected by tapping coconut palms, woven mats, etc. Further, the families will collect coconuts and process the copra from them, often through complex exchange relationships with the landlords, who own the trees. Further, temporary migration means a variation

in family size and income, as husbands and children go to cash crop areas at times of peak labor demand, particularly rice planting and harvest, or to urban areas to work in construction, domestic service, or other sectors of the informal economy. Such temporary migration removes the expense of supporting that individual when times are difficult in the local area, and provides cash remittances that can be invested in productive family enterprises or in human capital to further the family's earning potential through such strategies as increased education for children or siblings. In areas of tenuous land access and risk ecological conditions, such investments tend to be in livestock, including range chickens, swine, and carabao, rather than in increased inputs for crops. Which survival strategy a farm family chooses varies by family life cycle and social class. These factors also influence which technologies a farm family is likely to see as practical to adopt to solve their self-defined survival problems.

II. Analysis

Although the FSDP/ED has made excellent strides in identifying cropping systems and working with farmers to identify the major constraints to these systems, little whole farm analysis has been carried out. As a result, the degree to which results can be extended has been limited. However, when it has been carried out, the results suggest the power of using gender analysis in identifying constraints and supplying technological solutions.

At the Gandara site, cheese making was identified as a major family enterprise, invovling all family members at different stages of the production process. Animal nutrition (availabiiity of high protein feed for the carabao) was identified as a major constraint to increasing cheese production. The use of a cut and carry force feed system using ipil-ipil (Leucaena) leaves was identified as a potential strategy to overcome the constraint. In the analysis of the on-farm tests, the costs of male, female, and child labor were disaggregated (although the impact of increased milk and cheese production was not). As a result, a successful technology was identified. Successful dissemination of the technology would have required involving both men and women in the extension process. However, an insect attack defoliated the ipil-ipil trees, so extension was constrained.

Other sites have not systematically linked whole farm analysis, including gender roles, with constraint identification and technology testing and analysis. However, an initial analysis of gender roles in upland crop production (focusing on crops and not including off-farm marketing of value addnd items nor animal production) was carried out in three sites: Gandara, Villaba, and Matalom.

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 88 $2,000,000
Life of Project	:	3 Years
IEE Prepared By	:	John A. Foti, OAD, USAID/Manila Lynwood Fiedler, Research Biologist PASA TAB-473-1-67.
Date	:	
Environmental Action Recommended	:	Negative Determination
Concurrence	:	

_____ _____

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

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

Impact Areas and Sub-areas	Impact Identification and Evaluation*
A. LAND USE	
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. WATER QUALITY	
1. Physical state of water	N
2. Chemical and biological states	N
3. Ecological balance	L-U
4. Other factors	
C. ATMOSPHERIC	
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	N
2. Irreversible, inefficient commitments	N
3. Other factors	

E. CULTURAL

1. Altering physical symbols	N
2. Dilution of cultural traditions	U
3. Other factors	

F. SOCIO-ECONOMIC

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

G. HEALTH

1. Changing a natural environment	N
2. Eliminating an ecosystem element	U
3. Other factors	

G. GENERAL

1. International impacts	N
2. Controversial Impacts	N
3. Larger program impacts	N
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

FINANCIAL TABLES

EASERN VISAYAS FARMING SYSTEMS PROJECT
TECHNICAL ASSISTANCE COSTS

ITEM	UNITS	UNIT COST FX	UNIT COST PESOS	NO	COST FX	COST PESOS	UNIT COST FX	UNIT COST PESOS	NO	COST FX	COST PESOS	UNIT COST FX	UNIT COST PESOS	NO	COST FX	COST PESOS	TOTAL COST FX	TOTAL COST PESOS
		1988					1989					1989						
Expatriate Personnel																		
FSR/E Strengthening Spec. (COP)	PM	$10,500		12	$126,000		$10,500		12	$126,000		$10,500		0	$0		$252,000	0
Non-Formal Adult Training Spec.	PM	$10,500		12	$126,000		$10,500		2	$21,000		$10,500		0	$0		$147,000	0
Subtotal				24	$252,000				14	$147,000				0	$0		$399,000	
Local Personnel, Professional. (including overhead)	PM	$5,000		4	$20,000		$5,000		4	$20,000		$5,000		4	$20,000		$60,000	0
Subtotal				4	$20,000				4	$20,000				4	$20,000		$60,000	
Local Support Staff																		
Administrative Assistants (2)	PM		20,000	24		480,000		20,000	24		480,000		20,000	0		0	$0	960,000
Secretaries (2)	PM		2,000	24		48,000		2,000	12		24,000		2,000	0		0	$0	72,000
Drivers (2) + Travel Allowance	PM		2,000	24		48,000		2,000	12		24,000		2,000	0		0	$0	72,000
Computer Operator	PM		2,000	12		24,000		2,000	12		24,000		2,000	0		0	$0	48,000
Subtotal				84		600,000			60		552,000			0		0	$0	1,152,000
Other Costs																		
Transportation/Per Diem						100,000					50,000					0	$0	150,000
Equipment, Supplies and Maint.					$3,000					$1,500					$0		$4,500	0
Printing and Binding						40,000					30,000					0	$0	70,000
Housing/Utilities/Maint.					$2,500	50,000				$1,650	33,000				$0	0	$4,150	83,000
Vehicle Expenses					$4,000	80,000				$2,500	60,000				$0	0	$6,500	140,000
Communications						40,000					30,000					0	$0	70,000
Office Supplies					$750	15,000				$700	10,000				$0	0	$1,450	25,000
Total Other Costs					$10,250	325,000				$6,350	213,000				$0	0	$16,600	538,000
Grand Total					$282,250	925,000				$173,350	765,000				$20,000	0	$475,600	1,690,000
Total in Dollars					$328,530					$211,600					$20,000		$560,100	

EASTERN VISAYAS FARMING SYSTEMS PROJECT
PARTICIPANT TRAINING COSTS

TYPE	1988 TRAINEES	1988 YEARLY COSTS	1988 COSTS PESOS	1988 COSTS FX	1989 TRAINEES	1989 YEARLY COSTS	1989 COSTS PESOS	1989 COSTS FX	1990 TRAINEES	1990 YEARLY COSTS	1990 COSTS PESOS	1990 COSTS FX	TOTAL COSTS PESOS	TOTAL COSTS FX
VISCA PARTICIPANTS														
Long Term Participants at UPLB (3 YR Prog)	2	14,000	28,000		2	14,000	28,000		2	14,000	28,000		84,000	0
Long Term Participants at UPLB (2 YR Prog)	3	18,000	54,000		3	18,000	54,000		0	18,000	0		108,000	0
Continuation of MS progs. in US	2	$15,000		$30,000	0	$15,000		$0	0	$15,000		$0	0	30,000
Participation in FSR/E Annual Symposium	1	$3,500		$3,500	1	$3,500		$3,500	1	$3,500		$3,500	0	10,500
Asian Study Tours	4	$2,500		$10,000	4	$2,500		$10,000	4	$2,500		$10,000	0	30,000
SUBTOTAL VISCA			82,000	$43,500		-	82,000	$13,500			28,000	$13,500	192,000	$70,500
DA PARTICIPANTS														
Long Term Participants at UPLB (2 YR Prog)	6	18,000	108,000		6	18,000	108,000		0	18,000	0		216,000	0
Participation in FSR/E Annual Symposium	1	$3,500		$3,500	1	$3,500		$3,500	1	$3,500		$3,500	0	10,500
Asian Study Tours	4	$2,500		$10,000	4	$2,500		$10,000	4	$2,500		$10,000	0	30,000
SUBTOTAL DA			108,000	$13,500			108,000	$13,500			0	$13,500	216,000	$40,500
TOTAL PARTICIPANT TRAINING			190,000	$57,000			190,000	$27,000			28,000	$27,000	408,000	$111,000
Total in Dollars				$66,500				$36,500				$28,400		$131,400

TRAINING BUDGET FOR PROJECT FOLLOW-ON. FSDP-EV 1988-1991

PARTICULARS	Number of Days	No. of Participants		Cost/part per day (pesos)	Number of Sessions	Cost (P) Total 3 yrs	ANNUAL USAID FUNDS REQUIRED 1988	1989	1990	Total	GRP COUNTERPART 1988 Dept of Agric.	1988 ViSCA	1989 Dept of Agric.	1989 ViSCA	1990 Dept of Agric.	1990 ViSCA	TOTAL GRP Contribution
		Total	Per Session														
I. DESSIMINATION FOCUS																	
a. FSR/E Methods/process																	
a.1 FSR/E Short Course (VISCA)																	
a.2 FSR/E Apprenticeship	27	60	6	160	10	259,200	86,400	86,400	86,400	259,200	2,138	8,554	10,692				21,384
b. Technology/content																	
b.1 Farmer to Farmer	3	6000	300	170	300	3,060,000	1,020,000	1,020,000	1,020,000	3,060,000	3,815	15,260	19,076				38,151
b.2 Farmer Obs Trips	2	5400	180	54	180	583,200	194,400	194,400	194,400	583,200	2,039	8,156	10,195				20,390
b.3 Obs. Trips, PAO, MAO	4	400	20	190	20	304,000	101,333	101,333	101,333	304,000							
II. INSTITUTIONALIZATION FOCUS																	
a. Training of Trainers																	
a.1 Resource Persons	7	80	4	196	4	109,760	54,880	27,440	27,440	109,760	950	3,799	4,749				9,497
a.2 Training Specialist	7	40	2	196	2	54,880	27,440	27,440	0	54,880	475	1,899	2,374				4,748
b. Mobile Training																	
b.2 Compressed FSR/E	7	520	26	220	26	800,800	184,800	308,000	308,000	800,800	5,169	20,675	25,844				51,688
b.3 On-Farm Expt'n	7	180	12	220	12	277,200	92,400	92,400	92,400	277,200	2,220	8,878	11,098				22,196
c. FSR/E Seminar Workshops																	
c.1 For PAO & Staff	2	90	6	190	6	34,200	11,400	11,400	11,400	34,200	106	422	528				1,056
c.2 Reg'l Mgt	2	30	2	192	2	11,520	5,760	5,760		11,520	35	141	176				352
c.3 For Agric'l Schools	2	45	3	190	3	17,100	5,700	5,700	5,700	17,100	53	211	264				528
c.4 For MAO's and AFT's	2	60	4	190	4	22,800	11,400	5,700	5,700	22,800	70	282	352				704
III. STRENGTHEN FSR/E METHODS																	
a. Whole Farm Analysis	7	48	6	190	2	63,840	31,920	31,920	0	63,840	75	299	374				748
b. FSR/E Research Review	3	120	3	225	3	81,000	27,000	27,000	27,000	81,000	71	282	353				705
c. Tech Transfer W/shops	3	180	3	225	3	121,500	40,500	40,500	40,500	121,500	41	162	203				405
TOTALS		13253				5,801,000	1,895,333	1,985,393	1,920,273	5,801,000	17,255		69,021		86,276		172,552
	Farmers	11400															
	RDA Sta	1853								5,801,000							

EASTERN VISAYAS FARMING SYSTEMS PROJECT

VISCA/FARMI

TRAINING IMPLEMENTATION BUDGET WITHIN REGION VIII

(Pesos)

FOCUS	AID CONTRIBUTION	VISCA CONTRIBUTION	SUBJECT
I. Desemination Focus	320,000	100,000	Identification of self help technologies
II. Instititional Focus	1,280,600	234,000	Agriculture College network and scholarships (10), books/journals
III Strengthening Focus	500,000	802,000	FSR/E curriculum development
	150,000	150,000	Ag extension, marketing, household analysis
	150,000	150,000	Soils management and cropping studies
Total Training	2,400,600	1,436,000	

COMMODITIES REQUIREMENTS FSDP-EV 1988-1990

COMMODITIES	PDO	RDA	PROVINCE	VISCA	TOTAL $	TOTAL PESOS
c. 2 units 6-pen color plotter	15,000			15,000		30,000
d. 2 units 1000 watts UPS	10,000			10,000		20,000
e. 3 units aircons		28,000		60,000		88,000
f. 3 units Manual typewriters		30,000		15,000		45,000
g. 18 units Calculators			10,000			10,000
h. 2 units copy stands (for SLR camera)					$500	
k. 200 rolls Instant Slide Films					$1,000	
o. 6 units 125cc Motorcycles			210,000			210,000
q. 8 units p.a. system (bullhorns)				32,000		32,000
x. porometer					$480	
y. hydroprobe					$480	
z. soil auger					$687	
ab. phototube					$400	
ac. red filter					$300	
ad. overhead projector					$525	
ae. slide projector					$320	
af. UPS 100 watts					$370	
ag. AVR 1000 watts					$265	
ai. office furnitures				288,000		288,000
aj. Electric Polisher					$900	
ak. Refrigerators (2)		16,000		16,000		32,000
T O T A L S	25,000	74,000	220,000	436,000	$6,227	755,000

MAINTENANCE AND OPERATING EXPENSES. FSDP-EV (ALL SOURCES 1988)

PARTICULARS	USAID FUNDS						ANNUAL BREAKDOWN OF USAID FUNDS REQUIREMENT		
	PDO/RES DIV	PROVINCES	SRMU'S	HIREC	VISCA	TOTAL AID FUNDS (1988)	1989	1990	TOTAL FOR 3 YRS
a. Gasoline & oil	96,000	241,920	102,000	25,333	133,333	598,586	598,586	598,586	1,795,759
b. Repair and Maintenance									
1. Tires	30,000	45,000	12,000	7,500	13,333	107,833	107,833	107,833	323,499
2. Repair (vehicles)	140,000	210,000	120,000	20,000	60,000	550,000	550,000	550,000	1,650,000
3. Lab equipment	200,000				40,000	240,000	240,000	240,000	720,000
4. Office Equipment	100,000	60,000	15,000		40,000	215,000	215,000	215,000	645,000
c. Printing and Publict'n	100,000	120,000	30,000	5,000	66,666	321,666	321,666	321,666	964,998
d. Supplies and Materials					66,666	66,666	66,666	66,666	199,998
1. Seeds and Plt Mat		100,000	75,000	25,000		200,000	200,000	200,000	600,000
2. Expt Animals		20,000	20,000	5,000		45,000	45,000	45,000	135,000
3. Computer Supplies	75,000					75,000	75,000	75,000	225,000
e. Plane Fare (domestic)	30,000	0	5,000		28,666	63,666	63,666	63,666	190,998
f. Bldng Repair & Maint	100,000	120,000	120,000	120,000	66,666	526,666	526,666	526,666	1,579,998
g. Support to Conduct of Backup Research	200,000					200,000	200,000	200,000	600,000
h. Support to Seed Production in the Provinces		215,400				215,400	215,400	215,400	646,200
h. Travelling Expenses									
i. Comm. Services									
j. Transport Services									
k. Other Services									
l. Water, Light & others									
m. Spare Parts									
n. Represent'n Expenses									
o. Salaries									
p. Honoraria/incentives									
TOTALS	1,071,000	1,132,320	499,000	207,833	515,330	3,425,483	3,425,483	3,425,483	10,276,450

FSDP-EV SUMMARY BUDGET 1988-1990. GRP COUNTERPART FUNDS

PARTICULARS	TOTAL GRP FUNDS RQMT				TOTAL DAAGRIC'L				TOTAL VISCA				TOTAL NEDA
		1988	1989	1990		1988	1989	1990		1988	1989	1990	
a. Gasoline & oil	1,125,000	243,750	243,750	243,750	731,250	131,250	131,250	131,250	393,750	0	0	0	0
b. Repair and Maintenance													
1. Repair (vehicles)	150,000	32,500	32,500	32,500	97,500	17,500	17,500	17,500	52,500				
2. Lab equipment	300,000	65,000	65,000	65,000	195,000	35,000	35,000	35,000	105,000				
3. Office Equipment	300,000	65,000	65,000	65,000	195,000	35,000	35,000	35,000	105,000				
c. Printing and Publict'n	205,000	44,417	44,417	44,417	133,250	23,917	23,917	23,917	71,750	10,000	10,000	10,000	30,000
d. Supplies and Materials	750,000	162,500	162,500	162,500	487,500	87,500	87,500	87,500	262,500				
1. Seeds and Plt Mat													
2. Expt Animals													
3. Computer Supplies													
e. Plane Fare (domestic)													
f. Bldng Repair & Maint	100,000												100,000
g. Support to Conduct of Backup Research													
h. Support to Seed Prod in the Provinces	275,000	59,583	59,583	59,583	178,750	32,083	32,083	32,083	96,250				
h. Travelling Expenses	3,146,000	681,633	681,633	681,633	2,044,900	367,033	367,033	367,033	1,101,100	91,667	91,667	91,667	275,000
i. Comm. Services	360,000	78,000	78,000	78,000	234,000	42,000	42,000	42,000	126,000	75,000	75,000	75,000	225,000
j. Transport Services	230,000	49,833	49,833	49,833	149,500	26,833	26,833	26,833	80,500	16,667	16,667	16,667	50,000
k. Other Services	225,000	48,750	48,750	48,750	146,250	26,250	26,250	26,250	78,750				
l. Water, Light & others	420,000	91,000	91,000	91,000	273,000	49,000	49,000	49,000	147,000	60,000	60,000	60,000	180,000
m. Spare Parts	480,000	104,000	104,000	104,000	312,000	56,000	56,000	56,000	168,000				
n. Represent'n Expenses	330,000	71,500	71,500	71,500	214,500	38,500	38,500	38,500	115,500	20,000	20,000	20,000	60,000
o. Salaries	4,559,000	987,783	987,783	987,783	2,963,350	531,883	531,883	531,883	1,595,650	125,000	125,000	125,000	375,000
p. Honoraria/incentives	1,785,000	386,750	386,750	386,750	1,160,250	208,250	208,250	208,250	624,750	75,000	75,000	75,000	225,000
r. Commodities/Bldg. Cons	4,000,000					2,000,000	2,000,000						
TOTALS	18,740,000	3,172,000	3,172,000	3,172,000	9,516,000	3,708,000	3,708,000	1,708,000	5,124,000	473,333	473,333	473,333	1,520,000