Government of the Republic of the Philippines

Department of Environment and Natural Resources

RAINFED RESOURCES DEVELOPMENT PROJECT
PROJECT NO. 492-0366

- **ORIENT INTEGRATED DEVELOPMENT CONSULTANTS, INC., (OIDCI)**
  UNDER CONTRACT NO. 492-0366 - C - 00 - 1211 -00

- **UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID), PHILIPPINES**

September 30, 1991

VOLUME I
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ACRONYMS/ABBREVIATIONS

ACIPHIL	-	Asosasyon ng mga Consultant na Independiente ng Philippines
AF	-	Agroforestry
AMSS	-	Acceptance-Mobilization for Subsistence Security
ANR	-	Assisted Natural Regeneration
ARMM	-	Autonomous Region of Muslim Mindanao
BARDCI	-	Bicol Agricultural and Rural Development, Inc.
BGY	-	Barangay
BIG	-	Bio-Intensive Garden
BKFI	-	Bundok Kalinga Foundation, Inc.
BPI	-	Bureau of Plant Industry
BUCA	-	Bicol University College of Agriculture
BURDFI	-	Bicol Upland Resource Development Foundation, Inc.
CARE	-	Cooperative American Relief Everywhere
CBRM	-	Community-Based Resource Management
CDA	-	Community Development Assistant
CDO	-	Community Development Officer
CEE	-	Capital Build-Up Entrepreneural Enhancement
CENRO	-	Community Environment and Natural Resources Office
CFP	-	Community Forestry Program
CMS	-	Central Management Staff
CO	-	Community Organizing
CPS	-	Central Project Staff
CR	-	Community Reforestation
CSC	-	Certificate of Stewardship Contract
DA	-	Department of Agriculture
DAR	-	Departament of Agrarian Reform
DBM	-	Department of Budget and Management
DECS	-	Department of Education, Culture and Sports
DENR	-	Department of Environment and Natural Resources
DILG	-	Department of the Interiors and Local Government
DLG	-	Department of Local Government
DND	-	Department of National Defense
DSWD	-	Department of Social Welfare and Development
DTI	-	Department of of Social Welfare and Development
EMPAS	-	Environmental Management and Protected Areas Sector
ENR	-	Environment and Natural Resources
ENRC/URC	-	Environmental and Natural Resource Center/Upland Resource Center
ENRRC	-	Environment and Natural Resouraces Centers
ERDB	-	Environmental Research and Development Bureau
ERDS	-	Environmental Research and Development Sector
EVRDFI	-	Eastern Visayas Resource Development Foundation, Inc.
FA	-	Farmers' Association
FAO	-	Food and Agriculture Organization
FASPO	-	Foreign-Assisted and Special Projects Office

FC	-	Farmers' Cooperative
FLMA	-	Forest Lease Management Agreement
GOP	-	Government of the Philippines
HRD	-	Human Resource Development
IPAS	-	Integrated Protected Area System
IPB	-	Institute of Plant Breeding
IPMIC	-	Integrated Planting Material Improvement and Certification Program
ISF	-	Integrataed Social Forestry
ISFP	-	Integrated Social Forestry Program
KFP	-	Key Farmer's Problems
LBP	-	Land Bank of the Philippines
LGC	-	Local Government Code
LGU	-	Local Government Unit
MAFAI	-	Masaraga Agroforestry Farmers' Associations, Inc.
MPDC	-	Municipal Planning and Development Council
MPFD	-	Master Plan Forestry Development
NAFTSERCO	-	National Forest Tree Seed Research and Certification Office
NCR	-	National Capital Region
NFP	-	National Forestation Program
NGO	-	Non-Government Organization
NPCO	-	National Projects Coordinating Office
NRMP	-	Natural Resources Management Project
OIDCI	-	Orient Integrated Development Consultants, Inc.
ONCC	-	Office of National Cultural Communities
PENRO	-	Provincial Environment and Natural Resouraces Office
PMO	-	Project Management Office
PMS	-	Project Management Staff
PPDC	-	Provincial Planning and Development Council
PRRA	-	Participatory Rapid Rural Appraisal
PSSD	-	Philippine Strategy for Sustainable Development
R & D	-	Research and Development
RA	-	Technical Assistance
RED	-	Regional Executive Director
RFPO	-	Regional Federation of People's Organization
RMS	-	Regional Management Staff
RMU	-	Regional Management Unit
RRA	-	Rapid Rural Appraisal
RRDP	-	Rainfed Resources Development Project
RRSA	-	Rapid Rural Systems Appraisal
RTD	-	Regional Technical Director
SECAL	-	Sectoral Adjustment Loan
SELF	-	Settlement and Livelihood Foundation
SWC	-	Soil and Water Conservation
TAAFA	-	Taqubong Agbariri Agroforestry Farmers Association
TLA	-	Timber License Agreement
TSARRD	-	Technical Support for Agrarian Reform and Rural Development
UMACAP	-	Unyon sa mga Mag-uuma sa Capoocan Foundation, Inc.
UPLBFI	-	University of the Phillppines at Los Banos Foundation, Inc.
USAID	-	United States Agency for International Development
VISCA	-	Visayas State College of Agriculture

EXECUTIVE SUMMARY

A. BACKGROUND

The Assessment and Preparation of Follow-on Project Proposals for the Rainfed Resources Development Project (RRDP) was conducted from 21 August to 30 September 1991. Technical Assistance was provided by the Orient Integrated Development Consultants, Inc. (OIDCI) to the Department of Environment and Natural Resources (DENR) with funding from the United States Agency for International Development (USAID).

B. OBJECTIVES

1. To document the gains achieved by specific project sites toward achieving their socio-economic and environmental objectives;

2. Generate project proposals to sustain gains and expand/replicate the same in other program areas particularly those under DENR's community-based programs.

3. Formulate program-level proposals in support of ISFP, CFP, NFP and other community-based ENR management programs.

C. METHODOLOGY

Review of previous assessment documents with emphasis on those conducted since June 1990, at which time the TA for the project was ended.

Participatory Rapid Rural Appraisal (PRRA) on Lessons Learned conducted by the staff of specific projects, regional workshops in Luzon, Visayas and Mindanao during which the results of the survey were discussed and project proposals for sustaining gains and new follow-on projects were developed.

A National Technical Planning Workshop was subsequently conducted attended by selected central and regional technical officials, project managers. NGO representatives and other resource persons and the TA Team. The purpose of the workshop was to refine and augment the proposals prepared during the three regional workshops.

D. AGROFORESTRY

1. Assessment Findings

a. Site Development

The significant lessons learned in agroforestry and contract reforestation projects revolved around effective site and staff selection, effective strategies to encourage participation of farmers and the community, and valuable technological innovations in environmental conservation and reforestation.

The most important achievements relative to agroforestry and contract refo are the following:

- Stronger farmer participation when agroforestry is combined with contract reforestation by farmer's association.
- Stronger farmer participation in agroforestry when technology training is accompanied by input support.
- Farmer-trainor/extentionist; cross-farm visit; on-farm trial as most effective technology transfer techniques
- Various SWC techniques tested.
- Methods of crop-livestock integration.

b. Organizational Development

- A comparison of 16 agroforestry sites reveal that they are in various stages of development with the older sites (started in Cycle I) having achieved more developed and complex community organizations.
- Various options in association building such as a federation of farmers' associations around a farmer-staff core foundation (BURDFI) or a unitary farmer-based cooperative divided into work groups/committees (Masaraga, Magdungao, Kiblawan).
- Effective institutional linkages for various purposes have been forged by project management with the objective of providing more integrated and speedier response to farmers' needs and to link project development with R and D.

c. Special Projects

- Projects located in special problem areas have evolved their own distinctive management and farmer/community participation strategies, making them models in their own right for DENR in dealing with these special areas.

- o The Canlaon and Murcia agroforestry projects present important learnings in managing community-based projects located within a protected forest areas.

- o The Candijay Mangrove Rehabilitation Project is a pilot project in community-based agroforestry involving a mangrove forest.

- o The Cosina Agroforestry Project can be further developed as a model for DENR on the management of upland development involving a cultural community

2. Agroforestry Support Program for Sustainable Development

This program proposal outlines an opportunity for DENR to maximize the use of a pool of resources, including staff, site level training facilities, farmer-trainors and on-hand technologies and approaches which can be applied in ISFP areas of various stages of development. DENR can work in partnership with RRDP farmer-organizations in implementing new ISFP areas, replicating the techniques they found effective in their own case.

The existing resource pool of these projects consist of 9 active umbrella foundations and NGOs in seven regions; 46 active farmer organizations and cooperatives; 86 experienced and highly trained field staff; 131 farmer trainors; and 8 training centers with live-in facilities.

The target set for a 5-year implementation of the program addresses: 1) further strengthening of the existing organizations; 2) assistance in developing advanced CBRM as training sites for ISFP; and 3) expansion of strategies for community-based forest protection in CFP, IPAS, etc.

Total budget estimates for development of 80 target sites is P 349.868 M.

3. Institutional Development Project for CBRM

A corollary proposal to the Agroforestry Support Program is to develop the more advanced RRDP projects into a farmer-based regional Environment and Natural Resource Center which is part of an NGO network of institutional, technical and credit support to CBRM projects. The relationship of this network with the DENR, other national government agencies and LGUs is defined in the proposed institutional linkages framework.

E. CONTRACT REFORESTATION

1. Project Assessment

Of the five contract reforestation projects in RRDP Cycle II, only three have remained. One was destroyed by the eruption of Mt. Pinatubo and the other was abandoned by the contractor. The three remaining sites are fully implemented, and all have agroforestry components involving farmers' organizations. Turnover options have to take into consideration the sustainability of the farmer organizations and their possible role in protect maintenance and protection through FLMA.

2. Proposal for the Turnover of Completed Projects

This proposal is specific to three completed contract reforestation projects, namely: Bamban Contract Refo by TREE, Calawis Contract Refo by MSBFI, and Murcia Contract Refo by NFEFI. Two RRDP projects, the Porac Contract Refo which was destroyed by the Mt. Pinatubo eruption and the Ayungon Contract Refo which was abandoned by the contractor, are excluded from the proposal.

3. Some Policy Recommendations

Policy recommendations address the need to improve site selection and the need to improve the design and management of refo projects relative to the FLMA.

F. PRODUCTION NURSERIES, CLONAL ORCHARDS AND SPECIES TRIAL

1. Project Assessment

The accomplishments of the seven sites under this component of RRDP have exceeded targets set for the production nurseries, clonal orchards and species trial. Exception is the site in Bamban, Tarlac which was affected by Mt. Pinatubo.

Based on certain sustainability criteria, the ratings are high for CAR, Regions 5, 8 and 10 and low for Regions 3, 6, and 7.

2. Proposal for an Integrated Planting Material Improvement and Certification Program

The proposal addresses the need for an integrated planting material improvement and certification support system with the objective of gradually improving the quality of planting materials used in reforestation activities. The program shall start with the existing clonal orchards and species

trial in 7 RRDP regions while establishing new projects in 8 other regions.

The institutional framework for program implementation is DENR-based, and its functions are divided into research, production and certification. A time frame of 5 years is proposed to put the system into full operation.

G. SITE-SPECIFIC AND SPECIAL AGROFORESTRY DEVELOPMENT PLANS

The proposals for follow-on projects for specific project sites are contained in Volume II. A separate Executive Summary is contained in that volume.

H. ACKNOWLEDGEMENTS

The Technical Assistance Project was participated in by numerous persons in seven regions and in Manila. They include: the farmers and project staffs who participated in the PRRA; the site Managers who presented their reports and follow-on plans during the Regional Consultation-Workshops; and the RRDP Central Project Staff, regional officers and central program officers who actively participated during the regional and national workshops.

It is heartening to note also that the enthusiasm of these participants was matched by the assuring words and commitment to support the project proposals expressed by DENR policy makers led by DENR Secretary Fulgencio Factoran during the National Conference on the RRDP Assessment and Follow-on Projects.

INTRODUCTION

The Rainfed Resources Development Project Natural Resources Component was designed to establish sustainable upland resource management systems and alleviate upland poverty and unemployment. The project which was implemented by DENR with financial and technical assistance from USAID, was carried out in two cycles. Cycle I which was implemented from 1982 to 1987 was mainly concerned with "developing institutional capacities and policy frameworks" for community-based resource management. It also led to the implementation of four pilot agroforestry sites in 1985.

Cycle II which started implementation in 1988 addressed problems of resource degradation and mass poverty in 16 additional upland and one coastal site in various regions. The project was designed to provide direct assistance in resource and community development and in institutional strengthening of DENR's regional/field and central staff in managing the project.

The RRDP Cycle II components consisted of the following:

- Agroforestry Development (17 sites)
- Contract Reforestation (5 sites)
- Production Nurseries, Clonal Seed Orchard and Species Trial (7 sites)
- Institutional Development for DENR and contracted NGOs

Across these components, the DENR, assisted by a USAID-contracted T.A. Team, adopted three major strategies, namely:

- Technology Development;
- Community-based Organizational Development; and
- Institutional development in project management, including planning, operations and logistics, contract management, beneficiary training and monitoring and evaluation.

Project implementation involved a three-level management structure, starting with a Project Site Office headed by a Project Manager, a Regional Management Unit under the direct supervision of the Regional Executive Director, and a Central Project Structure in FASPO to take charge of coordination and monitoring.

Effective site development was the central problem around which the RRDP conceptual framework revolved, and which dictated the bases for capability building within the DENR and the NGOs participating in the project. This aspect involved two thrusts: 1) the development of appropriate upland technologies; and 2) the transfer of such technologies to the upland farmers. Site specific approaches were matched with the requirements of communities at different levels of development. The learning process inherent in participatory planning guided each step in project development.

RRDP Cycle II is scheduled for completion at the end of September 1991. It shall have left its beneficiary communities in varying stages of development even as they have all moved forward significantly from their starting points in 1988.

Community organization has been observed to be the key to sustained efforts toward self-reliance. In the RRDP experience, technological advancement, effective management and the resolve to expand has been largely influenced by organizational leadership. In a number of sites, the integration of former project staff and farmer trainors into the management structure of community organizations have led to decisions to expand to nearby communities through ISF or reforestation contracts with DENR. These project management staffs have also taken the initiative to organize the national level Federation of Rainfed Resources Development Foundations with the different site organizations as core members.

The remaining issue is to determine the directions of growth and future roles of the RRDP site organizations. There are strong indications that the ultimate goal of these organizations is economic in character. It may be suggested therefore that in their most mature stage, these organizations would develop into viable economic systems encompassing areas that are broader than their present sites.

The proposed workshop series will provide opportunities to RRDP staff at central, regional and site level to formulate strategies and mechanisms not only for sustaining the present level of organizational activities but also for providing directions for the future economic growth of RRDP-assisted communities.

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TERMS OF REFERENCE

The Technical Assistance for project assessment and follow-on program/projects is an important culminating activity of RRDP Cycle II. The Terms of Reference of the TA proceeded from two focal points:

a. The lessons learned by specific projects which should be maximized so as to strengthen further the contributions of these projects toward achieving the environmental, social and institutional objectives of their constituencies; and

b. The lessons offered and the combined strength of these projects taken together which can be effectively inputted into the approaches, systems and procedures of major resource management programs of DENR.

The TA project covered the period from 21 August to 30 September 1991 and was conducted by the Orient Integrated Consultants, Incorporated under contract with the United States Agency for International Development (USAID).

OBJECTIVES

1. To assess the individual experiences of RRDP projects with emphasis on:

   - Constraints and problems met during planning, implementation and monitoring, and strategies/coping mechanisms adopted;

   - Identification of positive elements in the management/technology transfer systems that facilitated achievement of objectives;

   - Identification of technological and managerial innovations that give a distinctive character to these projects which are worth replicating in similar problem situations.

2. To identify site level as well as program level follow-on projects designed to

   - strengthen further the community-based organizations that developed within RRDP project sites and assist them in achieving higher level objectives beyond RRDP; and

   - formulate new assistance programs for effective implementation of relevant DENR resource management programs, utilizing RRDP lessons and strengths.

PROJECT SUSTAINABILITY CONCERNS

The critical decisions that have to be made to ensure the long-term sustainability of project gains have to be made at three levels of concern. These can be made to correspond to three types of project/program proposals. These levels of concern are the following:

1. Immediate turnover of project sites after 30 September 1991 and their maintenance through the following dry months. This problem is particularly true of the completed contract reforestation projects and the clonal orchards and species trial projects. It was discussed on a case to case basis with the regional officers concerned during the regional workshops. Where supplementary budgets are necessary, commitment of support from central department budgets was sought from concerned national program/policy officers during the National Workshops;

2. Sustainability of level of development already achieved by community organizations and expansion of coverage or planning for higher objectives; and

3. Instituting a process by which effective community-based strategies, technology transfer mechanisms and other sustainability elements of RRDP can be incorporated into the planning and operations frameworks of major resource management programs of DENR.

PROJECT OUTPUTS

In accordance with the contract agreement between the Consultant and USAID, the TA team produced the following fully documented outputs:

1) Summary of Project Assessment Findings;

2) Proposal for an Agroforestry Support Program for Community-Based Upland Resource Management and Institutional Framework, and Budgetary Estimates;

3) Proposal for Sustainability of RRDP Contract Reforestation Projects and Policy Recommendations;

4) Proposal for the Sustainability of Existing Clonal Orchards and Species Trial and the Establishment of an Integrated Planting Material Improvement and Certification Program; and

5) Proposals for site-specific sustainability/expansion plans for special projects in a protected national park or critical watershed (Canlaon and Murcia), mangrove, (Candijay) and cultural community (Cosina and Upi).

REPORT ORGANIZATION

The report is presented in two volumes.

Volume I is divided into 4 chapters.

Chapter 1 contains the project assessment and follow-on project planning methodology, and findings.

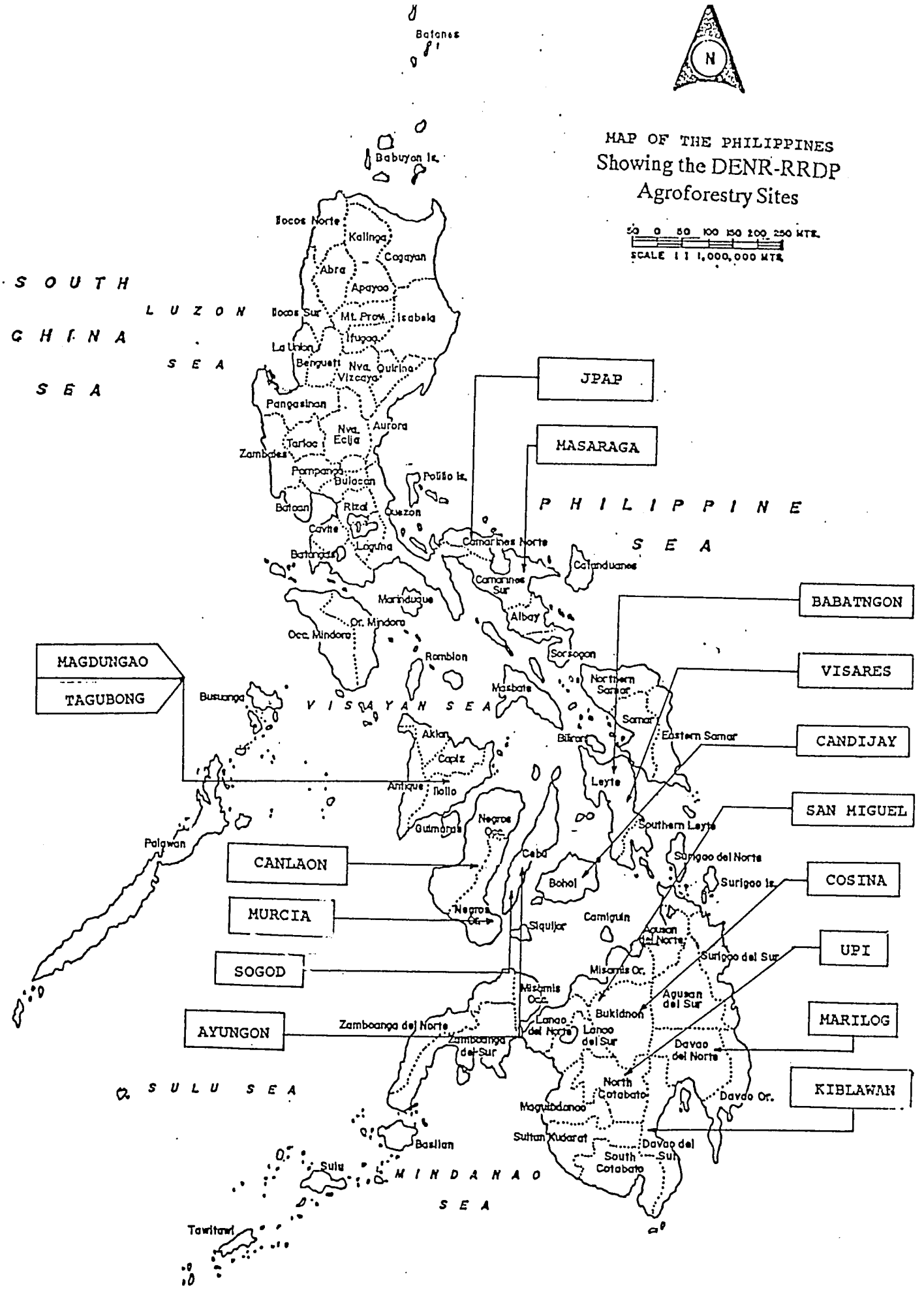
Chapter 2 contains the assessment findings, conceptual framework and program proposals for Agroforestry and Institutional Development.

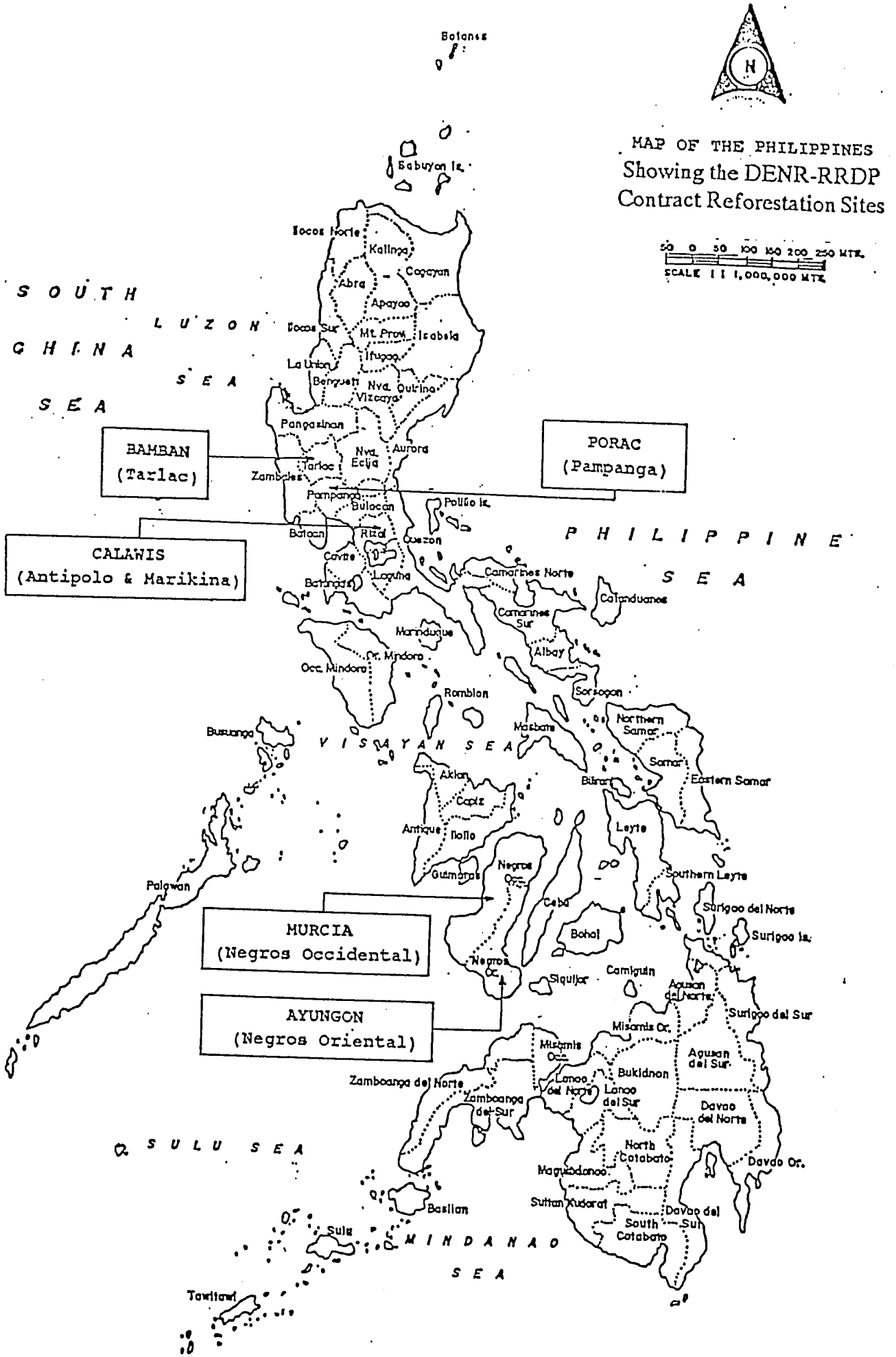
Chapter 3 contains the assessment findings and sustainability proposals and policy recommendations for the RRDP Contract Reforestation projects.

Chapter 4 contains the assessment findings and sustainability proposal for the Clonal Orchard and Species trial Project sites and the proposed Integrated Planting Material Improvement and Certification Program.

Volume II contains the site specific proposals which include the results of the Participatory Rapid Rural Appraisal, conceptual framework, turnover plans and follow-on projects.

MAPS OF PROJECT SITES


MAP OF THE PHILIPPINES
Showing the DENR-RRDP
Agroforestry Sites
SCALE 1 : 1,000,000 MTR.
JPAP
MASARAGA
BABATNGON
VISARES
CANDIJAY
SAN MIGUEL
COSINA
UPI
MARILOG
KIBLAWAN
MAGDUNGAO
TAGUBONG
CANLAON
MURCIA
SOGOD
AYUNGON
SOUTH CHINA SEA
LUZON
PHILIPPINE SEA
VISAYAN SEA
SULU SEA
MINDANAO SEA
Batanes
Babuyan Is.
Ilocos Norte
Kalinga
Cagayan
Abra
Apayao
Ilocos Sur
Mt. Prov.
Isabela
Ifugao
La Union
Benguet
Nva. Vizcaya
Quirino
Pangasinan
Aurora
Nva. Ecija
Tarlac
Zambales
Pampanga
Bulacan
Polillo Is.
Bataan
Rizal
Quezon
Cavite
Laguna
Batangas
Camarines Norte
Catanduanes
Camarines Sur
Albay
Marinduque
Or. Mindoro
Occ. Mindoro
Sorsogon
Romblon
Masbate
Northern Samar
Samar
Eastern Samar
Biliran
Leyte
Southern Leyte
Surigao del Norte
Surigao Is.
Surigao del Sur
Agusan del Norte
Agusan del Sur
Camiguin
Misamis Or.
Misamis Occ.
Bukidnon
Lanao del Norte
Lanao del Sur
Davao del Norte
Davao Or.
North Cotabato
Maguindanao
Sultan Kudarat
Davao del Sur
South Cotabato
Zamboanga del Norte
Zamboanga del Sur
Basilan
Sulu
Tawitawi
Busuanga
Palawan
Aklan
Capiz
Antique
Iloilo
Guimaras
Negros Occ.
Negros Or.
Cebu
Bohol
Siquijor


MAP OF THE PHILIPPINES
Showing the DENR-RRDP
Contract Reforestation Sites
SCALE 1 : 1,000,000 MTR.
BAMBAN
(Tarlac)
PORAC
(Pampanga)
CALAWIS
(Antipolo & Marikina)
MURCIA
(Negros Occidental)
AYUNGON
(Negros Oriental)
SOUTH CHINA SEA
LUZON
PHILIPPINE SEA
VISAYAN SEA
SULU SEA
MINDANAO SEA
Batanes
Babuyan Is.
Ilocos Norte
Kalinga
Cagayan
Abra
Apayao
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Marinduque
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Samar
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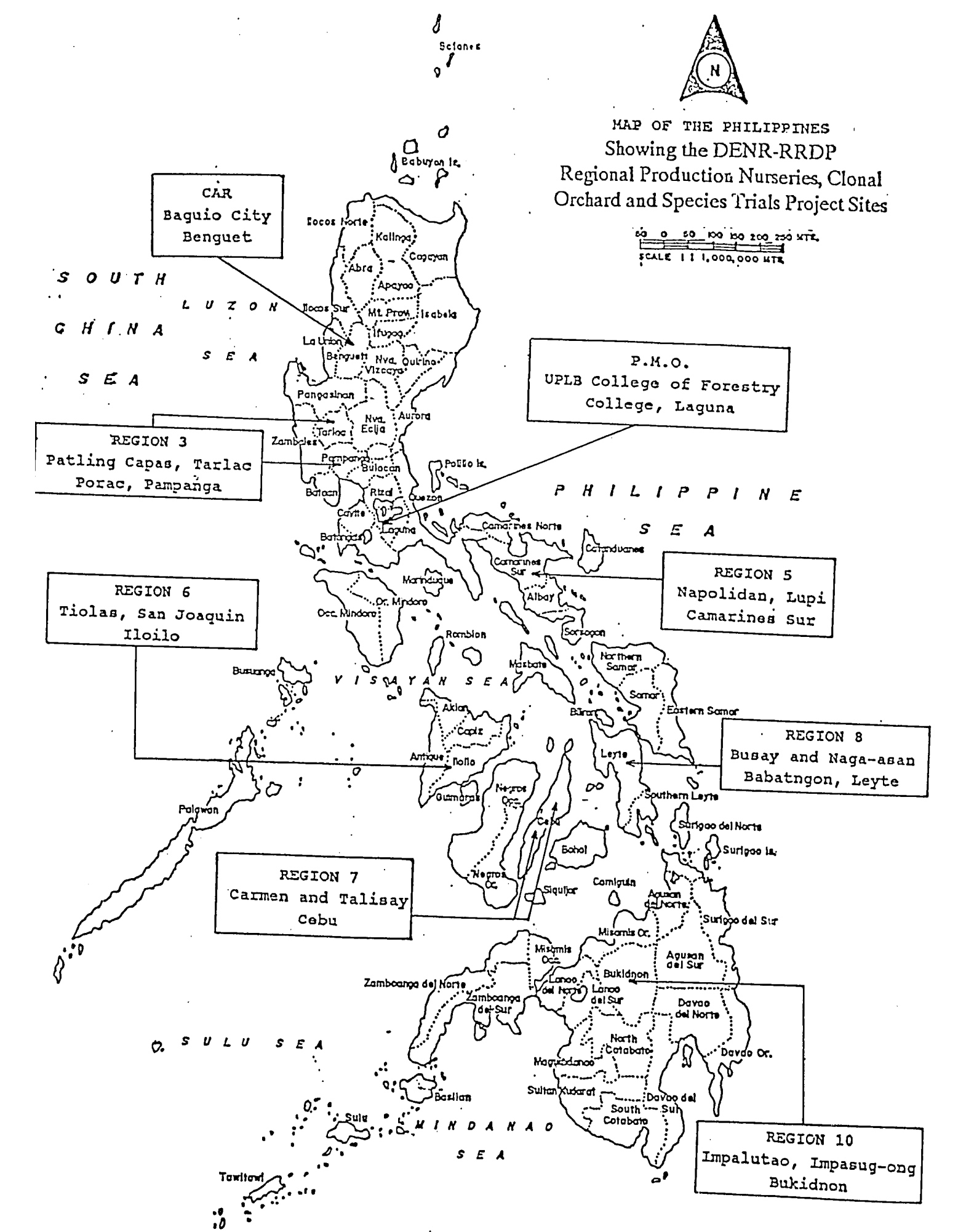
Negros Or.
Cebu
Bohol
Siquijor
Camiguin
Busuanga
Palawan


MAP OF THE PHILIPPINES
Showing the DENR-RRDP
Regional Production Nurseries, Clonal
Orchard and Species Trials Project Sites
SCALE 1 : 1,000,000 MTR.
CAR
Baguio City
Benguet
P.M.O.
UPLB College of Forestry
College, Laguna
REGION 3
Patling Capas, Tarlac
Porac, Pampanga
REGION 5
Napolidan, Lupi
Camarines Sur
REGION 6
Tiolas, San Joaquin
Iloilo
REGION 8
Busay and Naga-asan
Babatngon, Leyte
REGION 7
Carmen and Talisay
Cebu
REGION 10
Impalutao, Impasug-ong
Bukidnon
SOUTH CHINA SEA
LUZON
PHILIPPINE SEA
VISAYAN SEA
SULU SEA
MINDANAO SEA
Ilocos Norte
Kalinga
Cagayan
Abra
Apayao
Ilocos Sur
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Occ. Mindoro
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Masbate
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Samar
Eastern Samar
Biliran
Leyte
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Surigao del Norte
Surigao Is.
Aklan
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Guimaras
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Cebu
Bohol
Negros Or.
Siquijor
Camiguin
Agusan del Norte
Surigao del Sur
Misamis Occ.
Misamis Or.
Agusan del Sur
Bukidnon
Zamboanga del Norte
Zamboanga del Sur
Lanao del Norte
Lanao del Sur
Davao del Norte
North Cotabato
Davao Or.
Maguindanao
Sultan Kudarat
Davao del Sur
South Cotabato
Basilan
Sulu
Tawitawi
Palawan
Busuanga
Babuyan Is.
Scianes

CHAPTER 1

PROJECT ASSESSMENT AND REGIONAL WORKSHOP OUTPUTS

PROJECT ASSESSMENT AND REGIONAL WORKSHOP OUTPUTS

A. INTRODUCTION

The baseline information needed to carry out the TA for RRDP Assessment and Follow-on Project Planning were generated from two major sources: 1) secondary data including past assessment/evaluation reports and official records of RRDP in the FASPO, DENR; and 2) results of a Participatory Rapid Rural Appraisal (PRRA) conducted by RRDP site staffs among farmer respondents in almost all RRDP sites. The second procedure focused mainly on agroforestry projects since they typologize the community-based resource management concept which is the core element in the RRDP conceptual framework.

The assessment of Contract Reforestation projects, since they also involved community-based agroforestry components, also adopted the PRRA, hence the lessons were generated by these projects with regard to their participatory elements are also reflected in the agroforestry assessment findings.

The workshop series which started with detailed discussion of the PRRA findings at regional level and ended with the National Technical Planning Workshop generated insights into the RRDP experience from DENR officialdom. They were also intended to secure assurance of support from decision makers to the proposals turnover/follow-on proposals and other and other recommendations of the TA team.

B. METHODOLOGY

1. Procedures

a. Review of Secondary Data and all written documents with emphasis during the period later than the Policy Workshop and Synthesis of lessons learned conducted on June 22-26, 1990.

OIDCI-assisted assessment; follow-on project planning	--- 21 Aug to 30 Sept	1991
Management Audit by CPS	--- August	1991
Assessment WS of contract refo; phase-in-phaseout	--- March	1991
Policy WS on Lessons Learned	-- May 22-26	1990

RRDP Strategic Planning WS --- May 38-Junel 1990

Final Report of RRDP TA Team -- July 1990

External Evaluation, USAID --- 1989

b. PARTICIPATORY RAPID RURAL APPRAISAL (PRRA) involving key informants and farmers in Agroforestry and Contract Reforestation sites. Guide questions centering on significant elements of farm/ farmer and site development, project management, community organization and linkages were used.

c. REGIONAL WORKSHOPS were conducted in Luzon, Visayas and Mindanao attended by RTDs and key program officers concerned (ERDS, ISFP, EMPAS), RRDP Project Managers and farmer representatives. PRRA results were analyzed and synthesized and follow-on projects discussed during these workshops.

d. A NATIONAL TECHNICAL WORKSHOP attended by central and regional level technical officers to refine the program/project proposals based on a national-level synthesis of the assessment results.

2. Evaluation and Synthesis Framework

The framework for the assessment and synthesis of RRDP was essentially an input =====> process ====> output ====> impact type of scheme.

a. Inputs

- The PROJECT SITE, problems encountered and how resolved;
- The PROJECT STAFF, their qualifications, how they are to be evaluated, number of staff needed;
- PROJECT FUNDING, issues and problems encountered during implementation;
- FARMER PARTICIPATION, strategies adopted to promote/sustain farmer participation, indicators of participation in different phases of the project cycle;
- COMMUNITY PARTICIPATION, most important strategies adopted, forms and indicators of participation;
- UPLAND TECHNOLOGIES, most well adopted and why, how extended and impact of these technologies on income and on environment;

- Important INSTITUTIONAL LINKAGES, how did they come about, what were their results, other linkages needed;
- TENURE, effective tenurial arrangements, other arrangements needed for development and why.

b. Process

- AGROFORESTRY
  1) DENR-ADMINISTERED
  2) NGO-CONTRACTED
- CONTRACT REFORESTATION
- PRODUCTION NURSERIES, CLONAL ORCHARDS AND SPECIES TRIAL (Contracted)
- INSTITUTIONAL STRENGTHENING, which addressed the improvement of specific DENR project management processes

c. Outputs

- Stage of farm development including physical and technical indicators;
- Degree of farmer participation, effective indicators;
- Community participation, effective indicators;
- Increase in productivity and income;
- Environmental/land use changes;
- Other outputs (livestock dispersal; revolving funds, cross farm visits, etc.).

3. Lessons Learned

Lessons are viewed as a positive concept in the input-process-output model. Negative conditions when reversed through coping or problem-solving mechanisms become positive learnings in this assessment framework.

The input-output model used in the recently completed project assessment was used in the mid-term participatory assessment conducted in 1990. The lessons learned during that period were recalled during the present PRRA and regional workshop presentations. In both workshops, lessons can be classified into several types as in the following examples:

Example 1 : Important site viability preconditions

Lesson : RECOGNIZE ABSOLUTE PRECONDITIONS (e.g. availability of site/legal status; peace and order)

Lesson : LEARNING WHEN TO CHANGE SITE/ABANDON PLAN

Example 2 : Coping with constraint

Lesson : CONSTRAINT IDENTIFIED and reported to Central Office Management for solution but which could not be resolved (e.g. delay in funding)

Lesson : COPING MECHANISMS of field staff/farmers learn to cope with constraint (e.g. revolving fund generation)

Example 3 : Problem solving

Lesson : NEGATIVE CONDITION identified and CAUSE OF PROBLEM traced (e.g. hostility of farmers)

Lesson : EFFECTIVE APPROACHES in problem solving tried and mastered (e.g. establish rapport with farmers; effective IEC techniques)

Example 4 : Accessing resources/services

Lesson : FORGING INSTITUTIONAL LINKAGES

Example 5 : Innovations

Lesson : STAFF-INITIATED innovations

Lesson : FARMER-INITIATED innovations

Lesson : Learnings from CROSS-FARM VISITS

Example 6 : Achieving higher goals

Lesson : PLANNING SKILLS

Lesson : Learning to EXPAND

In a real sense, the recent exercise validated the findings presented in the Policy Workshop in 1990, hence the decision to include in full the consolidated report presented in the 1990 Workshop Proceedings. Interestingly that report implied project outputs in the term sustainability indicators. The section on Outputs and the indication of ISFP objectives

addressed is therefore a distinct contribution of the recently conducted assessment.

4. Follow-On Methodologies

The Analysis and Synthesis part focused on the following outputs:

a. Identifying and characterizing the stages of development of various RRDP sites especially the community-based types (Typology).

b. Identifying key intervention processes and inputs that work toward attainment of RRDP objectives.

c. Generating an Agro-eco-socio-cultural "influence area" or "recommendation domains" where 2 can be applied. This is important for the follow-on activities and plans in relating RRDP to key national programs.

d. Validate reliable 'sustainability' indicators for assessing Agroforestry, Contract Reforestation and Clonal Nurseries.

e. Relate findings on 1-4 to institutional/policy support needed to implement national projects for Contract Reforestation, ISFP, CFP, FLMA, projects, and considering broader program in support of MPFD and PSSD.

f. Research and extension supports needed to generate sustainable community-based resource management projects related to ISF, CFP, Contract Reforestation and others.

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C. GENERAL FINDINGS

1. Time Frames of RRDP Projects

RRDP experience in site development and community organization spans 7 years for the older sites and 3 years for Cycle II sites, as follows:

Old sites	New sites
1. Jose Panganiban, Cam. N.	1. Tagubong, Iloilo
2. Masaraga, Albay	2. Murcia, Neg. Occ
3. Magdungao, Iloilo	3. Canlaon, Neg. Occ
4. Visares, Leyte	4. Ayungon, Neg. Or.
	5. Sogod, Cebu
	6. Candijay, Bohol
	7. Babatngon, Leyte
	8. Sam Miguel, Bukidnon
	9. Cosina, Bukidnon
	10. Kiblawan, Davao S.
	11. Marilog, Davao City
	12. Upi, Maguindanao

These two time frames have significant bearings on the typologies that resulted from the assessment process. The following observations are noteworthy:

a. The goal structure of the older projects has already evolved from a predominantly security-oriented and rehabilitative character to that which is oriented toward economies of scale and external markets. This is to be expected to follow naturally when farm/communal spaces are nearly or fully utilized through contoured planting multi-storey cropping or reforestation.

b. A hierarchy of farmer-based organizations has evolved particularly in the older sites. At the base of the hierarchy are primary people's associations ranging from small workgroups to full-fledged farmers cooperatives. At the project site level is a core organization, generally a non-stock non-profit foundation providing technical and management services to the primary associations. In recent months the site-based foundations have formed themselves into the Federation of Rainfed Resources Development Foundations which is based in Manila and admits other organizations with environmental concerns into its membership.

c. Institutional development in younger projects tend to follow the path of the older ones, but generally in a faster rate, having absorbed the lessons learned and strategies developed in the older pilot projects. Most notable are Tagubong and Kiblawan, which in many respects are already at par with the older projects.

d. The NGO-contracted Sogod Agroforestry Project followed a distinctively CO first-technologies follow approach in project development in contrast to simultaneous thrust at the very start that was followed by the other projects. The learnings are significant in terms of time-framing and input programming. Since CO was intended for early introduction of income generating projects for which funding sources are easily available, livestock dispersal in Sogod became a relatively more important starter component. As a consequence, farming and conservation technologies are still highly deficient, and identified for further assistance.

2. Findings of Previous Assessments

Two types of assessments have been conducted in the past, those done be external teams/missions and those that came out of participatory appraisals/workshops attended by site managers, regional and central staffs and TA consultants. For purposes of the present study, a summary and discussion of three selected assessments are presented in the paragraphs below.

a. USAID Evaluation, 1989

Evaluation of the DENR component of RRDP focused on the accomplishments and impact of agroforestry projects under Cycle I and only some descriptive statements on Cycle II. These are the following:

1) Field operations established and maintained

- formerly hostile communities have accepted DENR staff presence
- settlers are adopting new technologies and eager to train other farmers
- new community organizations have implemented large-scale improvement projects
- local adaptations of technology packages
- widening circle of trained personnel

2) Top department management has adopted the "pilot" role of RRDP projects in solving national environmental problems

- field approach is applied to various resource development activities ranging from protection of national parks to mangrove rehabilitation;
- contracting procedures of the department drastically overhauled for more effectiveness in stabilizing large areas in need of work;
- new GOP initiatives adopted RRDP field operations and contracting procedures;

- community approach adopted as guide to all employees in the DENR Mission Statement for the nest 1000 days.

3) The four project sites served in RRDP Cycle I covered 2,660 hectares. The number of farm units/families covered totaled 706 hectares or 55% of the project area, the rest were to be developed as Forest Reserve. Total target beneficiaries was estimated at 3,954 persons.

4) In Cycle II 12 new "agroforestry" sites were started, with a total of 9,601 hectares. The combined number of farms in the 16 sites totaled 2,976 hectares and total household population was 16,070.

5) Graded trails, water supply and community building projects have been organized and completed by farmer organizations.

b. Policy Workshop 1990

As mentioned earlier, the findings of the recently concluded assessment validated the findings in the 1990 Policy Workshop, indicating early monitoring and documentation of lessons learned.

Since the details of these lessons are invaluable to the end-users of this document, the same is reproduced in full and annexed to this chapter (Annex 1.1).

D. CONSOLIDATION OF LESSONS LEARNED FROM AGROFORESTRY PROJECTS

This section summarizes the results of the participatory rapid rural appraisal conducted in some 12 agroforestry project sites. They reflect largely the perception of farmer respondent in contrast to past appraisals which reflected more the perceptions and intentions of project staffs. An attempt is made to identify the ISFP objectives which have been successfully addressed by RRDP under the Output matrix.

INPUTS	LESSONS
The Project Site	- Assurance of CSC/tenure made entry easy; - Adverse claims emerged during implementation - Suspicion of project motives made social acceptance difficult Strategies to overcome constraints: - information campaign - persuasion/patience of project staff
The Project Staff	Traits: - committed - willing to live in the project site - rural background - technical background in agrof/agr. with experience - rapport with farmers/community How evaluated: - performance - farmers involved in staff evaluation - words and deeds Number of staff: - 3 to 5: Technical, CO, admin.
Project Funding	Issue: - delayed releases of funds Coping: - revolving fund - personal sacrifice - For Contracted Projects: contractor's own funds; timely billing - delay implementation
Farmer Participation	Strategies: - hands-on training - participatory planning and implementation; - on-farm trial/farmer-to-farmer trng. - timely delivery of services - skills training - cross visit/farm visits - emphasis on immediate needs - revolving fund generation - staff rapport with farmers - establish credibility of project

Community Participation	Strategies: - establish workgroups/organization - involve community in planning/ decision making - linkage with local leaders - dagyaw/hil-o hil-o/bayanihan
Upland Technology	Most well adopted - SWC - multi-storey cropping - farm forest - relay cropping/inter-cropping - livestock integration - BIG/basket composting - communal refo - SST/SET How extended: - farmer-trainor - OJT - on-farm demo/trial - cross visit - field visitation
Infrastructure	Indicators: - graded trails - SWIS - community-based nurseries - community water supply - training center - SWC structures
Institutional Linkages	- DA for technology - LBP for credit - LGU (BGY) for advice - DECS for education-related activities - ERDS/academe for research - DTI/DSWD for non-farm livelihood - NGOs for funding/CO assistance
Tenure	- CSC is most effective tenure arrangement

OUTPUTS		(ISFP OBJECTIVES ADDRESSED)
Tenure Improvement	Developed farms provide strong argument for security of tenure/ participation in forest management programs of DENR	(Legitimization of forest occupants)
Farm Development	Indicators:- area developed vis-avis plan - SWC adopted - increase in area planted - livestock integration - diversified cropping - composting	(Development of agroforestry farms)
Infra-structure	Indicators:- completed graded trails - operational training facilities - completed SWIS - completed and maintained water supply system	(Provision of infrastructure support)
Participation of Farmers	Indicators:- attendance at meetings - adoption of technology introduced - own innovations	(Effective farmer extension
Community Participation	Indicators:- participation in community community activities - active alayon/dagyao/ palihug - maintenance of facilities/ infrastructures	(Formation of viable beneficiary organization)
Household Income	Indicators: (very rough estimates) - increased productivity of farm - increase in net income	(Socio-economic upliftment of ISFP participants)
Environmental Protection	Indicators:- illegal logging reduced - cogonal land changed to contoured farms - multi-storey cropping - crop-livestock integration - SWC adopted - burning of grass minimized - planting of trees in idle lands - BIG - riverbank planting - composting	(Environmental rehabilitation
Other outputs	- Livestock dispersal system vary among projects; - revolving fund generation	(Provision of livelihood opportunities)

FOLLOW-ON

Sustaining Site Gains	- Continuous farm lot improvement - farm forestry to be further promoted - provision of IGPs - cattle fattening a promising in come source - marketing assistance is needed - strengthening of farmer's organization
Expansion	- Assistance for the expansion of project coverage in response to demand of neighboring areas for inclusion in the project
Lessons for ISFP, other programs	- Staff/staffing requirement - CO process (social preparation, group formation) - upland technology accompanied by input support - agroforestry cum contract reforestation - livestock integration - strong institutional linkages - community-based forest protection - revolving fund generation - farmer-to-farmer training/cross visit

E. IMPLICATIONS OF THE PROPOSED LOCAL GOVERNMENT CODE ON CBRM PROGRAMS

This additional note is presented as integral part of this chapter because of its criticality in the planning of future management frameworks of CBRM projects/programs. It is mostly taken from a preliminary draft prepared by Assistant Secretary Rolando Metin of DENR.

1. Pertinent Provisions of the Local Government Code

a. General

1) Section 17 provides that:

- o devolution "shall include the transfer to local government units of the records, equipment, and other assets and personnel of the national agencies and offices corresponding to the devolved powers, functions and responsibilities."
- o "Personnel of said national agencies or offices shall be absorbed by the local government units to which they belong or in whose areas they are assigned to the extent that it is administratively viable as determined by the said oversight committee

- "Regional offices of national agencies or offices whose functions are devolved ... shall be phased out within one (1) year from the approval of this Code. Said national agencies and offices may establish such field units as may be necessary for monitoring purposes and providing technical assistance to local government units. The properties, equipment, and other assets shall be distributed to the LGUs in the region in accordance with the rules and regulations issued by the oversight committee created under this code..."

2) Section 533 on oversight committee provides that the President shall convene the oversight committee for the formulation of implementing rules and regulations of the Local Government Code to be composed of the following:

Chairman	Executive Secretary
Members	3 Representatives from the Senate
	3 Representatives from the House
	Secretary of DILG
	Secretary of Finance
	Secretary of DBM
	1 Representative each from the Leagues of Provinces, Cities Municipalities and Barangays

b. Specific to DENR

1) Section 17 (2) (ii) on functions to be devolved to the municipalities and cities:

"...subject to control of DENR, implementation of community-based forestry projects which include integrated community forestry programs and similar projects; management and control of communal forests with an area of not exceeding fifty (50) square kilometers; establishment of tree parks, greenbelts and similar forest development projects."

2) Section 17 (3) (ii) on functions to be devolved to provinces:

"...subject to supervision, control and review of the DENR, enforcement of forestry laws limited to community-based forestry projects, pollution control law, small-scale mining law and other laws on the protection of the environment; mini-hydro-electric project for local purposes."

3) Section 484 (a) (2nd para) says that the appointment of the environment and natural resources officer is optional for provincial, city and municipal governments.

4) Section 484 (3) (iv) provides for coordination (by the ENRO) with government agencies and NGOs in the implementation of measures to prevent and control land, air and water pollution with the assistance of the DENR.

2. Implications

a. Some personnel of DENR would be transferred to either the province or municipality where specific DENR functions will be devolved. These personnel might include:

- o CDOs/CDAs working in the CENROs
- o foresters working in the CFP
- o forest rangers

b. Projects/programs that are likely to be transferred to LGUs are: CFP, FLMA and other community-participated reforestation projects

c. The following functions are not identified for devolution:

- o land management services
- o surveys
- o management of protected areas
- o management of TLAs and similar license agreements
- o geological exploration
- o large-scale reforestation
- o mining services
- o research

d) There will still be DENR offices in the provinces and in the municipalities where PENROs and CENROs operate.

e) There is a deliberate distinction between appointive local officials and employees, and field officials and employees of national agencies.

3. Observations

a. There is going to be limited transfer of DENR functions and therefore , personnel, to the LGUs.

b. There will still be national government offices (and employees) in the provinces, cities and municipalities. It is safe to say that DENR will be one of the national government offices that will retain presence in the local governments because of the limitations in the

devolved functions as identified in Section 17. For example, land surveying, forest protection, supervision of TLAs and reforestation are not mentioned as among the functions to be devolved. These are, at present, the substantive functions of DENR PENROs and CENROs.

c. While the Code provides for an ENRO, his appointment is optional. His functions, though, except for the limitations mentioned in (b) above, approximate those of the PENRO/CENRO.

4. Recommendation

a. The DENR Policy Service should fine-comb the Code and present in matrix and discussion form its general policy implications to the mandates, functions and activities of the Department. The purpose is to determine more clearly what the law intends to transfer to the LGUs and what DENR has to retain as functions

b. A review of minutes of the Committee hearings, both the Committee on Local Government of the two houses and of the Conference Committee will be helpful in understanding the intention of the Code.

c. The analysis should result in a draft implementing guideline which should serve as input to the Oversight Committee in formulating the implementing rules and regulations. The draft should be done by the Policy Service which shall be discussed later by the DENR Executive Committee. Participation in the discussions by the REDs, selected RTDs, PENROs and CENROs is desirable.

ANNEX

Annex 1.1

LESSONS LEARNED FROM COMMUNITY-BASED UPLAND PROJECTS: THE RRDP EXPERIENCES IN AGROFORESTRY*

1.0 THE PROJECT SITE

The selection of the proper site for the agroforestry or reforestation project is the critical first step in project development.

The major lessons learned from RRDP about this activity are:

1.1 A detailed criteria for site selection must be established and understood before any site is screened.

Among the major points to be considered in the criteria are:

a. The area should be certified available and free from encumberments such as pending or already released as A and D or under the jurisdiction of other agencies.

b. A good or manageable peace and order situation exists in the site.

c. There is ample opportunity for expansion of the project outside initial boundaries as the project grows.

d. There should be diverse land capability and land-use systems to create diversity needed for stability and to serve as models for various technologies.

e. The minimum of one household for every three to four hectares should be a guide for determining project size.

f. The site should be accessible with a potential for developing access as the project gains momentum.

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* National Policy Workshop on RRDP, June 1990.

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2.0 THE PROJECT STAFF

Proper selection and evaluation of the project staff is a key ingredient to the future project success. These are the people who can and will implement and develop a successful project regardless of the constraints.

Key to the selection is:

2.1 Formation of a screening committee for the selection of the Project Manager and staff.

2.2 A concise criteria for selection formulated and understood before the selection committee meets to discuss and choose candidates.

The more important criteria which should be considered are:

a. Technically capable either through formal education or work experience in the appropriate field.

b. Should have a rural background and/or experience in similar community-based projects.

c. Has strong commitment to work and live on site.

d. A preference should be given to qualified local residents which already have a high credibility rating in the community.

2.3 An orientation of the staff to the project philosophies, goals, objectives and approaches should be given as soon as the personnel are hired.

2.4 A mandatory probationary period of six months to observe the personnel under field conditions is extremely necessary. During this probationary period there should be evaluation of the candidates. A final evaluation should be made before person is rehired.

3.0 PROJECT FUNDING

Funding is important in all projects. The RRDP has had varied experiences with funding mechanisms for both projects by administration and by contract. The RRDP has learned:

3.1 The timely release of project funds is critical to good project implementation and advancement.

The release of funds can be facilitated by:

a. On-time submission of accomplishment and financial reports.

b. Formulation of a realistic work and financial plan the first time so delays in revising and submission of the plan do not take place.

c. On-time monitoring by contract supervisors. The monitoring officer must also be allowed enough time away from other duties to carryout monitoring and evaluation activities.

d. NGOs establishing field level financial disbursements while there designating SDOs for government administered projects.

3.2 The projects should install coping mechanisms in case there are delayed release of funds.

The RRDP projects have found the following worthwhile mechanisms since the delay of funds is a problem in all project sites.

a. Establishment of revolving funds for both the staff and farmer organizations.

b. Establishment of project credit lines where supplies and inputs can be purchased.

c. Inclusion of first quarter procurement in the fourth quarter of the preceeding year.

d. Use of training activities budgets to procure needed inputs.

e. Concentration on project activities which require little or no funding or activities which only use available local resources.

f. Hiring of personnel only when they are really required at the project.

g. For NGOs, the use of their own funds to bridge the funding gap.

4.0 FARMER PARTICIPATION

The activities which enhance farmer participation are critical to developing interest and sustainability of the project.

There are number of mechanisms which RRDP projects have found successful in stimulating farmer participation in the project. The most commonly used are:

4.1 Involvement of the project participants in planning, implementation, monitoring and evaluation of the project.

4.2 Good orientation of farmers to the project with a careful clarification of expectation and roles of both staff and farmers generates interest and enthusiasm.

4.3 The project must identify and address the project participants felt needs. A satisfactory mechanism to do this is use of the RRA and KFP.

4.4 Transparency mechanisms must be identified and installed by the project to prevent misunderstandings and misconceptions which inhibit implementation.

4.5 The project staff should live in the project site, work with the farmer participants and if possible participate in community affairs outside the regular project scope.

4.6 Education and training opportunities for project participants enhance interest in the project and stimulate personal development of the farmer.

4.7 There are a number of incentive systems that work to increase participation including issuance of project IDs, cross-visits, certificate of accomplishment, outstanding farmer awards.

5.0 COMMUNITY PARTICIPATION

5.1 The development of a community-based project is dependent on the degree of community participation. Each project must formulate activities which promote cooperative efforts and increase the capacity of the community to implement, manage and sustain their project.

The RRDP projects have used several mechanisms successfully to stimulate community participation. Among these are:

a. The use of indigenous community organizations to implement project activities.

b. Introduction of income generating projects.

c. Generation of revolving funds to make capital available for community use.

d. Involvement of the community and its leaders in all phases of project development including sourcing of funds.

e. The use of material inputs as a catalyzer for community activities. Among those most commonly used are : planting materials, fertilizer, tools, water systems, livestock dispersal, and contracts for community used infrastructure.

f. Facilitation of workgroup formation to implement activities which are more easily done by more than one person, thus promoting cooperativeness amongst individual members.

g. Identify and install transparency mechanisms so there are no misconceptions about the project by project participants. These include open financial books, fair hiring practices for contracted labor,plans and targets for project are available to everyone.

h. The staff participates in the affairs of the community outside their regular duties.

6.0 UPLAND TECHNOLOGY

6.1 Appropriate technology in the uplands are those which both provide immediate returns to the farmers and promote soil, water and nutrient conservation and enrichment.

These technologies are:

a. Soil-Water Conservation and Soil Fertility Enhancement (SWC plus animal manure input, animals plus multi-purpose hedgerows, SWC plus limited amounts of inorganic fertilizer and lime, crop rotation).

b. Multi-storey cropping

c. Livestock integration

d. Communal reforestation

e. Nursery development

f. Upland aquaculture

g. Mangrove rehabilitation and mariculture, artificial reefs and their protection

6.2 There are mechanisms which can be used to promote the spread or expansion of appropriate and sustainable upland technologies. These mechanisms are the following:

a. Involvement of local government right from the initiation of the project.

b. Use of on-farm and farmer-run trials and demonstrations.

c. Use of cross-farm visits.

d. Provision of starter materials such as seeds, cuttings, fertilizer, livestock, tools, etc.

e. Training held by farmers with other farmers and credible staff.

f. Production and use of appropriate extension materials.

g. Conduct of feasibility studies for livelihood projects prior to expanded adoption by farmers.

h. Access to credit and provision of support structures such as graded trails, access roads, etc.

i. Provision of work animals.

j. Forest development activities done simultaneously with protection.

7.0 INSTITUTIONAL LINKAGES

Sustainability and upland development will require the formation of necessary institutional linkages at all levels, both horizontal (within DENR) and vertical (with other agencies and NGO's).

The following are the forms of linkages which were found to be facilitative and useful:

7.1 Involvement of local and provincial government and other agencies that can provide basic services at all stages of project development.

7.2 Coordinate with other agencies which have already established projects in or near the project.

7.3 Invite resource speakers and resource persons of appropriate agencies during planning and training programs.

8.0 TENURE

Provision of appropriate tenurial security to upland farmers is highly promotive of project adoption, it restores credibility of government and neutralizes vested interest groups working against farmer interests. The following are areas of possible improvement in tenurial provisions for hastening upland development:

8.1 Modification of CSCs to contain provisions for perpetual utilization rights to products of land improvement.

8.2 Provisions of CSCs and appropriate leases on time, before project phase-out.

8.3 Establishment of mechanisms for rapid resolution of conflicting tenurial claims in the project areas from local to national levels involving DLG, DAR, DA, and Office of National Cultural Communities (ONCC).

9.0 INDICATORS OF PROJECT SUSTAINABILITY

The monitoring and evaluation system of a community-based project must include reliable social and bio-physical indicators for sustainability. Some useful indicators generated by the projects are the following:

9.1 *Project level*

a. Social indicator

- o Replication of technology without staff involvement
- o Increasing number of adoptors
- o Lesser demand for project assistance from the community
- o Increasing community-initiated plans
- o Decrease in loan delinquents
- o Shift in decision-making from staff to local community
- o Increase in kind and number of formal and informal organizations in the community
- o Increase in number of full time farmers
- o Increase in number of children sent to school
- o Decrease in number of people engage in destructive activities, i.e., illegal logging, gambling, dynamite fishing, etc.
- o Increasing community support to staff/ project in times of need
- o Increasing number of critical and inquisitive farmer participants
- o Increasing ability to solve internal conflicts
- o Increasing number of full time farmers
- o Increasing awareness and willingness to protect natural resources of the community
- o Increasing number of non-participant adoptors coming from outside of project area
- o Increasing demand by community for other agencies to provide basic services
- o Enhance capability by farmers to run own-farm trials and other innovations

b. Bio-physical indicators

- o More planting of permanent crops where before farmers only engaged in planting annual crops
- o Transfer of residence by participants and staff into project staff especially during phase-out
- o Continued maintenance of on-farm and community infrastructure

9.2 *Program level*

a. Adaptation by DENR and other agencies and organizations of methods, philosophy, technology and strategies generated by the project.

b. Community-based projects must be planned for at least five (5) years.

c. Adaption and implementation of policy instruments generated by the project.

d. Development of turnover mechanisms.

e. Develop criteria for access to the generated revolving fund by the farmers.

10.0 LESSONS IN CROSS FARM VISITS

Effectively serves as catalyst for technology adoption, farmer and community organization and discovering and developing linkages with other farmer groups. It also serves as an incentive system for key farmer leaders and extension workers.

A successful cross farm visit would require the following:

10.1 Identification of the objectives of the cross farm visit. It must address the needs of the farmers in the locality.

10.2 Assessment and identification of site(s) for the cross-farm visit should take into account the agroclimatic, social organization, level of development and relevance of the technology from both the place of origin the farmers and the location of the site for visitation.

10.3 Assessment of facilities at the site to be visited. Sites for cross-visit should have adequate facilities to support farmers in their visit without unnecessarily disturbing the community.

10.4 Selection of participants based on a given set of criteria as agreed upon by the farmers.

10.5 Orientation of selected participants to the trip to include schedules, individual responsibilities and requirements, background to the site for the visit and expectations from participants during and after the visit.

10.6 Actual visit. The following has been found to be useful during the time of actual travel and visit:

a. provisions for pictorial documentation
b. adequate time for farmer dialogue and interactions
c. adequate reflection sessions during and after the cross visit
d. acquisition of inputs required to implement the perceived applicable technology upon return to home base and agreement on possible follow-up activity by host farmers.

10.7 Post Visit Assessment. This is conducted by the staff and the farmer participants involved in the cross visit especially with regards to technology applicability and the value of the whole trip.

10.8 Re-echoing and Application. Farmer participants draw-up individual and group plans for sharing of experiences with other project participants as well as implementation of technology in their own farms.

10.9 Follow-up activities by project staff.

11.0 LESSONS FOR REVOLVING FUND GENERATION

Revolving fund generation is important not only for asset building but also for promoting capacity building for the community to manage their own financial resources.

There are several key ingredients for establishing, maintaining and increasing the size of the revolving fund. These are the following:

11.1 Identify and define purpose of the fund. This should be generated by the community. Services of the fund should be identified with specific infrastructures, commodities and/or farm inputs.

11.2 Develop a scheme that would include payment and penalties for non-obeyance, fund-safekeeping, transparency of records, collection systems determination of interest rates and collection mechanisms.

11.3 Provision for training of officers and members on financial management which would include simple bookkeeping and accounting procedures.

12.0 LESSON ON SETTING UP A FARMER-BASED EXTENSION SYSTEM FOR PROJECT SUSTAINABILITY

This is a participatory mechanism that would allow capacity-building at the local level to ensure continuation and expansion of appropriate upland technology.

The following elements have been found to be important in establishing and maintaining a farmer-based extension system:

12.1 Establishment of criteria for selection of farmers to be trained as extension agents by both staff and farmers.

12.2 Training needs assessment of the farmer trainees.

12.3 Development of the training program which includes content, methods and monitoring and evaluation.

12.4 Implementation of the training curriculum and practical application of technologies on trainees own farm.

12.5 Final selection and application of probationary period before actual designation of extension agents.

12.6 Provision of proper incentive system most preferably in kind not in cash.

12.7 Performance evaluation of extension agents done with project participants and staff.

12.8 Development of a resource catalog which will promote the farmer-based extension system and illustrate adaptable technologies. This catalog should be continuously updated and disseminated by DENR.

CHAPTER 2

AGROFORESTRY SUPPORT PROGRAM AND INSTITUTIONAL DEVELOPMENT

PROPOSED AGROFORESTRY SUPPORT PROGRAM FOR SUSTAINABLE UPLAND DEVELOPMENT

A. RATIONALE/SITUATION ANALYSIS

After a little more than 6 years of actual implementation, the 16 community-based agroforestry projects of RRDP implemented in 7 regions involving 4,806 families and 5,430 hectares (4,446 ha uplands and 400 ha coastal) (See Table 2.1) generated the following assets as shown in Matrix Table 2.2:

- o 9 active Umbrella Foundations and NGOs in seven regions;
- o 46 active farmer organizations and cooperatives;
- o 86 experienced and highly trained field staff;
- o 131 farmer trainors
- o 8 training centers with catering capacity, technical capacity, actual farmlot demonstration areas and farmer training absorptive capacity for 320 persons per session.

The training centers are already being used by ISFP, NGOs for farmer and staff training and also by schools as practicum site for students. These assets which are "on the ground" and permeates from the grassroots, to the national levels (e.g., former RRDP staff are key persons in DENR programs, i.e., NFP, ISFP, CFP and NRMP) can be effectively tapped to provide support for the new and reinvigorated programs of DENR as well as other agencies on Community-based Natural Resource Management (CBRM). These assets also comes in the form of synthesized lessons on the most effective combination of intervention strategies for effective peoples participation, empowerment including key indicators for social, technical and physical outputs and processes for sustainable resource management.

There is no doubt that these human resource pool, technical assets, farmer-based organizations, "living upland and coastal laboratories" can form a core network together with other relevant projects, programs, organizations and institutions which can provide the necessary support for mainstream community-based natural programs in the environment and natural resources sector such as the ISFP, CFP, NFP, NRMP, SECAL-ENR, IPAS and Mangrove Development Program. DENR alone cannot cover, provide support and reach out to all of the upland and coastal areas and population covered by these major national programs. For example in ISFP alone, there are 3,038 projects throughout the country but DENR can only set-up 177 model ISFP sites where efforts for upland development in both staff and material support can be deployed. It was also estimated that at the rate ISFP is being implemented today, it will take 6 decades to reach all upland target participants. If the national objectives of promoting resource conservation and poverty alleviation is to be attained

on time as a race against population growth, the effectiveness of CBRM should be speeded up by providing the most appropriate and timely support program for upland and coastal resource management.

Table 2.1. RRDP Agroforestry Projects Profile

Total No.	16 in 7 Regions (11 by admin; 5 by NGO contract)
Total No. of Families Involved	≈ 4,446
Total Upland Area Involved	≈ 5,030 ha
Total Coastal	Families - 360 Area Coastal ≈ 400 ha

Region	T Y P E	
	Admin	Contract
5	* Jose Panganiban	* Mt. Masaraga (BUCA)
6	* Magdungao Tagubong Canlaon	Murcia (NFEFI)
7	Ayungon	Candijay (ACIPHIL) Sogod (CARE)
8	* Visares Babatngon	
10	Cosina San Miguel	
11	Kiblawan	Marilog (SELF)
12	Upi (ARMM)	
TOTAL	11	5

Table 2.2 RRDP-Generated/Initiated Assets for Upland Development

Region/Location		Umbrella Organization/ Federation	Farmer Organization	Staff	Training Capacity		
					Farmer Trainors	Trng Center Capacity	Other Notes
5	Jose Panganiban, Cam Sur	Bicol Upland Resources Development Foundation Inc. (BURDFI)	11 Farmer Organizations 5 Coop	4	11	30-40 capacity	Used as training center for ISFP
	Masaraga, Albay		MAFAI (180 members)	4	19	35-40 capacity	Social Laboratory of BUCA; ISFP Training Center
6	Murcia Neg. Occ.	NFEFI	Baciwa Multipurpose Coop	4	12	Multi-Purpose	
	Tagubong, Passi, Iloilo	Bundok Kalinga Foundation Inc.	Tagubong Agbariri Agroforestry Farmers Association Inc.	3	7	25-30 capacity	Used as Training Area of ISFP
	Magdungao Passi, Iloilo		MAFAI	4	11	40-50 capacity	Used as Regional Training Center (FAO-TSARRD)
	Biak-na-Bato Canlaon, Neg. Occ.		Rainfed Resources Upland Farmers Federation Inc.	4	7	staff house	

Region/Location		Umbrella Organization/ Federation	Farmer Organization	Staff	Training Capacity		
					Farmer Trainors	Trng Center Capacity	Other Notes
7	Ayungon, Neg. Or.		Ayungon Upland Farmers Association	4	7	Staffhouse & Multi-Purpose Center	Already used as ISFP Training Site
	Sogod, Cebu	CARE-Phil & UGMAD	12 Registered Farmer Orgn				
	Cogtong, Candijay, Bohol	ACIPHIL	Fishermen's Association registered	5	10	Project Office & Multipur-pose Bldg.	Used as Practicum Area for Fisheries Students
8	Visares Capoocan, Leyte	Eastern Visayas Resource Development Foundation Inc. (EVRDFI)	UMACAP Foundation Inc.	4	15	30-40 capacity	Used as practicum area by VISCA and as training center by ISFP
	Babatngon, Leyte		4 registered Farmer Coop	4	7	20-25 capacity	Used as training area by ISFP
10	San Miguel, Baungon, Bukidnon	Mt. Kitanglad Community Development Foundation Inc.		9	5	20-30 capacity	Used as training site by ISFP
	Cosina, Bukidnon			4	3		
11	Pasig, Kiblawan, Davao del Sur	Kiblawan Rural Development Foundation Inc.	Pasiq Multipurpose Coop	10	9	30-40 capacity	Used as ISFP training site
	Mariloq, Davao City	SELF	4 Farmer Organizations	20		(1) multi-purpose building	

Region/Location		Umbrella Organization/ Federation	Farmer Organization	Staff	Training Capacity		
					Farmer Trainors	Trng Center Capacity	Other Notes
12	Upi, Maguindanao		SURDA	3	8	Multi-Purpose Building	To be turnover to ARMM
TOTAL 16		9	46	86	131	8 (320 cap.)	o ISFP Training Center o Practicum Area for Schools o Social Laboratory

B. FRAMEWORK AND PROJECT CONCEPT

The analysis of the experiences in the implementation of the 16 community-based agroforestry projects under varying socio-cultural and bio-physical conditions in 7 regions of the country in RRDP Cycles I and II indicate that there are at least 3 major stages in the development process towards the sustainable stage. These stages as shown in Figure 2.1 are as follows:

1. Stage I. Acceptance - Mobilization for Subsistence Security Stage (AMSS)

   This is the stage where the community has to be convinced to accept the project as their own so they will participate, provide counterparts, plan and implement cooperative endeavors for upland technology adoption, implementation and also innovation trials. Usually those activities are oriented to the attainment of immediate needs for food, clean and sufficient water supply, health and education.

2. Stage II. Capital Build-up - Entrepreneurial Enhancement Stage (CEE)

   This stage is the post-stage of soil-water conservation installation, farm development, tenurial security and organization formation and mobilization. It is a stage where the need for development is pushed towards capital build-up, market-orientation and efficiency, processing and post-harvest concerns. Socio-economic studies on various ISFP representing various degrees of success indicate that in the most successful one, on-farm income can only contribute to 45 percent of total household income. There is therefore the need for enhancing the CEE Stage.

3. Stage III. Self Reliance Stage

   This stage is reached when the community has the full capacity and empowerment to decide its own course and strategies for development.

   As shown in Figure 2.1, most of the RRDP agroforestry projects have passed the AMSS stage and are in various parts of the CEE curve. This is also the major reason why these projects will still need support and some degree of external catalytic inputs.

   A major contribution of RRDP, however, is the demonstration that the correct combination of intervention strategies implemented by well selected project staff could shorten the AMSS stage to CEE from 4-5 years to 2-3 years at lesser cost. A concrete example of this is the second generation (RRDP Cycle II) projects exemplified by Kiblawan Agroforestry Project in Davao del Sur which applied the

lessons learned in RRDP Cycle I (Figure 2.2) which resulted in faster acceptance of project and adoption of upland technology. This was achieved through the proper timing of intervention strategies consisting of the following:

- o Need Appraisal through RRSA and KFP
- o Formation of Work groups
- o Provision of CSC (tenure)
- o Farmer Training, Cross Visits cum provision of starter materials
- o On-Farm Trials
- o Revolving Fund through Workgroup Contracts
- o Support Credit and CO
- o Linkages with LGU and Line Agencies

A key ingredient of course was the catalytic role of technically capable, committed and people-oriented staff who live in the project site.

The Conceptual Framework of a community-based environment and natural resource management generated by RRDP Agroforestry project experience is shown in Figure 2.3. The conceptual framework indicates that an appropriate implementation strategy for hastening the sustainable development of CBRM must bring together needs of the community members targeted, their capacity, timely provision of the needed inputs and providing the appropriate ownership or security instruments for their resource stakes. As CBRM evolves from one stage to another these implementation strategies must also change since need, capacity and inputs also change. However, at all stages these 4 elements must be properly assessed and used as basis for developing the appropriate implementation strategies.

C. OBJECTIVES

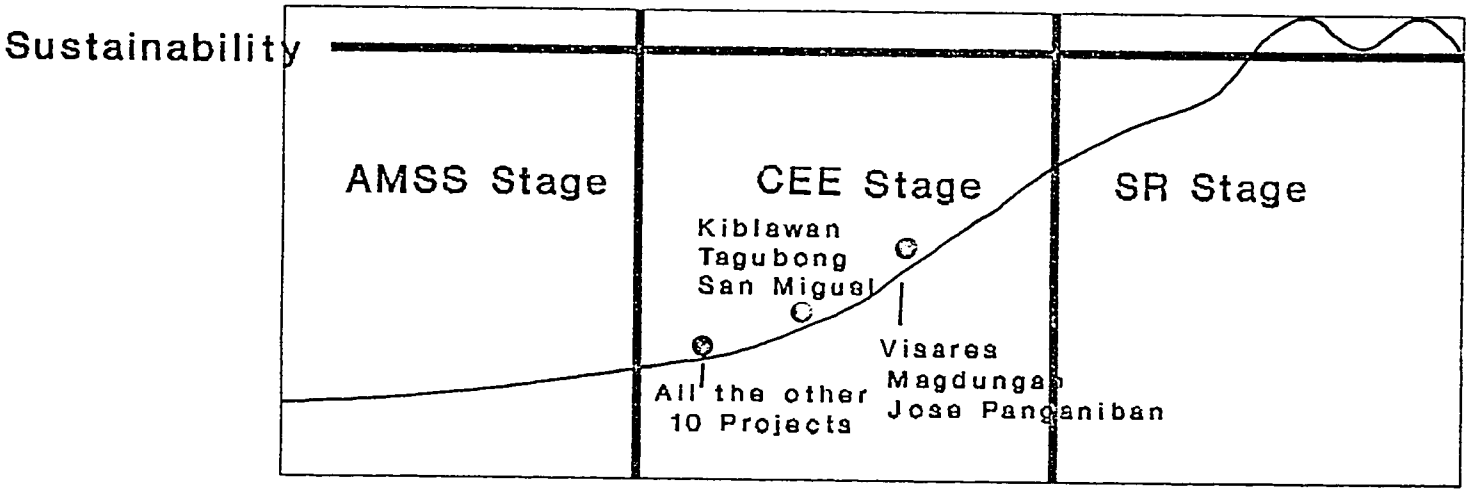
1. To effectively harness the pool of experienced and proven manpower to support CBRM projects especially ISFP and CFP.

2. Apply proven intervention strategies and processes in CBRM to catalyze faster development of ISFP project sites other than the model ISFP.

3. Expand successful strategies for Community-based Forest protection strategies in CFP, IPAS , parks and critical watershed areas.

4. Further develop the successful CBRM project sites as environmental education outreach areas through proper linkage with DECS and adjacent educational institutions.

Figure 2.1



3 - 5 Years

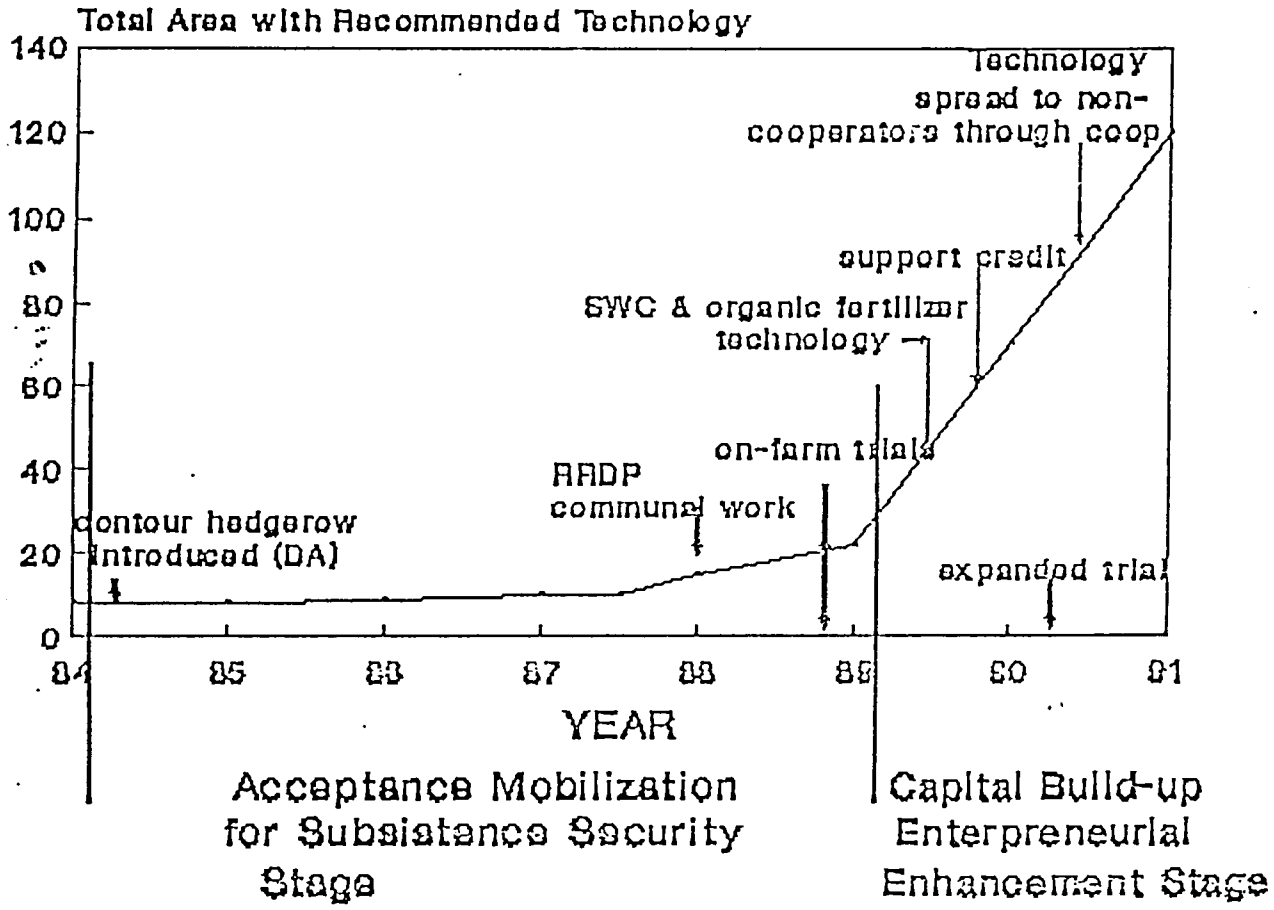
- o Tenurial security
- o Cross visit
- o Staff
- o Skills building
- o SWC
- o Increased Productivity
- o Farmer Participation
- o Farmer Organization
- o On-Farm Experimentation

4 - 8 Years

- o Capital Build-up
- o Enterpreneurial Skills Build-up
- o Post Harvest
- o Processing
- o Capitalization
- o Marketing
- o Technical

Figure 2.2

Kiblawan Agroforestry Project
Stages of Development



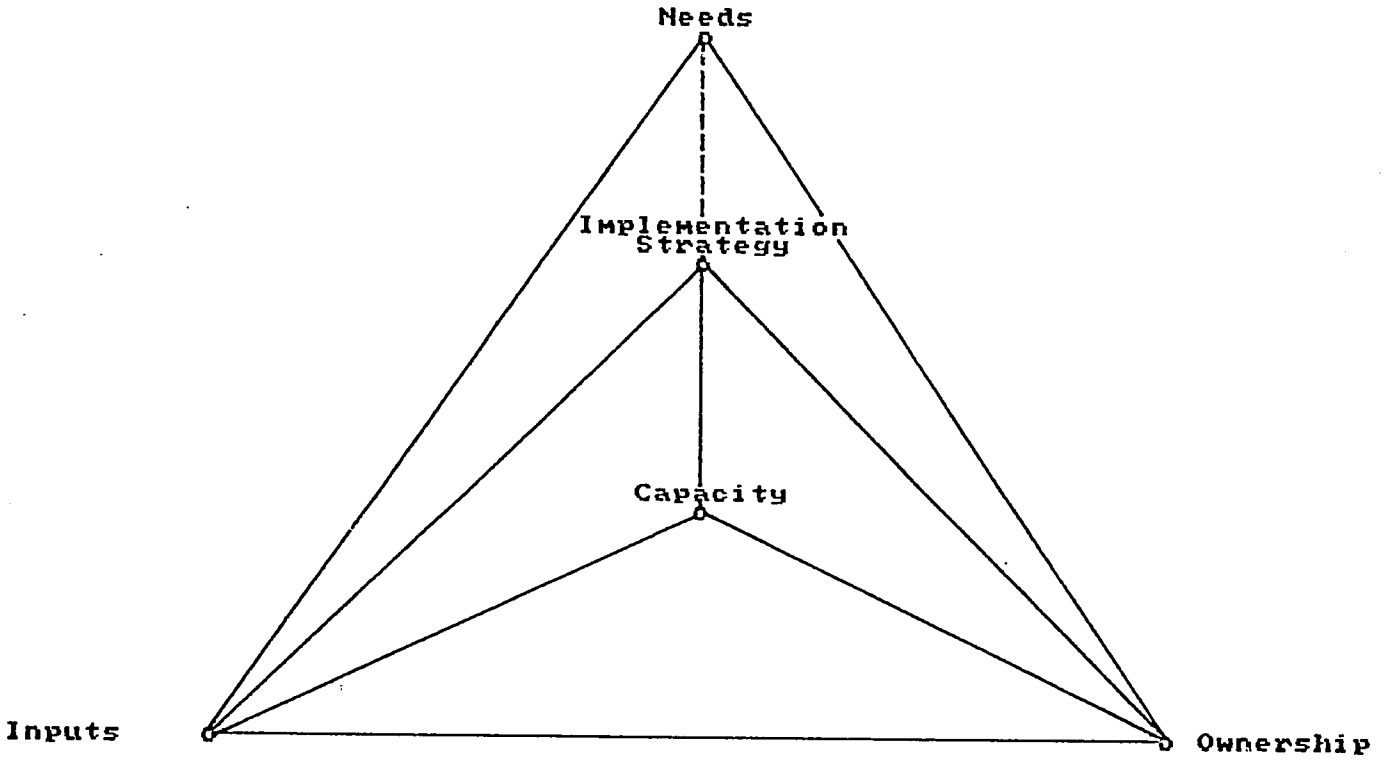


Figure 2.3 Conceptual Diagram of the Various Elements of a Community-Based Resource Management (Bagadion, B. Jr., 1991)

D. TARGET AREAS AND BENEFICIARIES

1. Support for new ISFP Sites

80 ISFP sites covering at least 100 participants each for 4 years.

2. Support for Advanced CBRM Sites

48 project sites covering 3,000 participants for 4 years.

3. Community-Based Forest Protection

10 project sites in A and B or CFP areas involving 4,000 hectares.

4. Environmental Education

20 project sites involving at least 2,000 students.

E. STRATEGIES OF IMPLEMENTATION

Support Program for New ISFP Sites

Effective combination of strategies as experienced in the implementation of successful CBRM projects will be applied in both a process approach and technical support strategy . It will start with rapid assessment using RRA and KFP which will provide the basis for implementing the following:

- Tenurial security (CSC or other appropriate tenure);
- Farmer training, cross-visits and provision of starter materials for adoption of farm development and SWC;
- CO support;
- Infrastructure support for water requirements, access trail as a means of building up workgroups and revolving funds; and
- Other effective strategies, i.e., on-farm trials and linkages with relevant agencies.

There will be process documentation and monitoring using effective indicators.

2. Support for Advanced CBRM

The target for this program component will be organized farmer groups and cooperatives. Tt will consist of credit support for viable enterprises such as backyard or small scale livestock production, handicraft industry preferentially non-wood based, food and fruit processing,

feedmill, provision for post harvest installations and machineries, marketing support, training for improving the organization skill for financial management and process documentation.

3. Community-Based Forest Protection Program Component

This component should complement CBRM especially where there are existing adjacent forest areas, i.e, IPAS program, CFP, ISFP or old reforestation areas, national parks or critical watersheds. The strategy is to provide the appropriate incentive system so that communities will participate in forest protection. These incentives could be in the form of tenurial security, product access, provision of basic needs and actual economic incentives for those involved as designated by the community and formalized by DENR. The incentive system will come in terms of various combinations of these different incentives.

4. Environmental Education

The present well-developed sites of upland development projects provides a very good example of technological and social strategies for promoting environmental conservation in the uplands and coastal areas. A formal linkage will be developed with DECS and the adjacent or nearby academic institutions to use these areas as living laboratories by developing a curriculum which makes use of the experiences in conservation from these sites.

F. IMPLEMENTING SCHEME

Implementation of the CBRM Agroforestry Support Program will be through a Contract with DENR and NGOs concerned by an umbrella organization or Foundation representing NGO/PO network of the Environment and Natural Resource center (ENRC). The ENRC is described more fully in the institutional section of this report.

G. BASIC ASSUMPTIONS FOR INDICATIVE BUDGETARY COMPUTATIONS

1. General Assumptions

a. The 16 agroforestry project sites with active Farmer Organizations/Cooperatives/Umbrella Federation will serve as the core base for the ENRC.

b. in 5 years, the absorptive capacity of the core base will allow it to transform 80 more regular ISFP sites into CBRM at the Capital Build-up-Entrepreneurial enhancement Stage. This 1:5 projection is based on the RRDP experience in Cycle II. This is the projected output of the agroforestry support program for new ISFP sites.

c. In 5 years, the projected output of the agroforestry support program for the more advanced sites (mostly the present, ISFP model sites) will transform 32 model ISFP sites into the advance phase of the CEE stage. By the end of the fifth year, there will be 48 core members of the ENRC.

d. Two staff representing one technical and one CO expertise will handle 2 new ISFP project sites covering approximately 600 hectares and 300 families.

e. There will be local technical assistance to provide overall project assistance, monitoring and evaluation cum coaching to be provided by the Umbrella Organization at the regional and national levels.

2. Support Program Components for Advance CBRM Sites, i.e. Model ISFP Sites

1. Targets are organized farmer groups and cooperatives.

2. Credit assistance will only be provided as pilot cases for financial viability, further credit assistance of viable projects will be through regular lending institutions such as Land Bank.

Indicative Budgetary Requirement for Agroforestry Support Program

	Project Category/Activities	Cost/Project Site for 5 Years (₱)
A.	Support for New ISFP Sites	
1.	Project Management	
a)	Personnel (2 staff composing a team for 2 project sites @ ₱10,000/mo)	600,000
b)	MOE	
o	Travel and Per Diem @ ₱5,000/mo	300,000
o	Communication and ₱1,000/mo	60,000
o	Supplies @ ₱3,000/mo	180,000
o	Representation @ ₱1,000/mo	60,000
2.	Farmers Training On-Site 2 batches per year; 30 persons/ batch for seven days @ ₱78,000/batch	780,000
3.	Cross visits 30 Farmers/farmer trainors in 2 batches @ ₱1,000/ farmer	60,000
4.	Starter Inputs ₱1,000/trainee; 120 persons	120,000
5.	Graded Trail Construction - Target is 22 km @ ₱10,000/km	220,000
6.	Water Impoundment Target is at least 2 units (5,000 liters per unit) @ ₱5,000/unit	10,000
7.	Monitoring and Evaluation including Process Documentation @ ₱10,000/mm for 20 mm	200,000
8.	Administrative Overhead (10%)	259,000
	Total	2,849,000
9.	Inflation (25%)	712,250
	Total	3,561,250
	TOTAL - A (For 80 sites)	284,900,000

	Project Category/Activities	Cost/Project Site for 5 Years (₱)
B.	Support for More Advance CBRM Projects, i.e., Model ISFP, First Batch of Type A Supported Projects, etc.	
	1. Strengthening of Farmer Organizations (Technical and Financial Management Training, Registration of Farmer Organizations/Cooperatives)	437,500
	2. Production Assistance (Farm Development Assistance in the form of starter materials for promising farming systems)	600,000
	3. Credit Modules (Piloting for Financial and Technical Feasibility)	
	a) Multiple Cropping and Crop Intensification in SWC Areas	204,992
	b) Cattle Fattening (20-40 heads)	130,000
	c) Post Harvest Piloting	65,000
	4. Project Management; Monitoring and Evaluation	200,000
	5. Administrative Overhead (10%)	163,750
	Total	1,801,242
	6. Inflation (25%)	450,311
	Total	2,251,553
	TOTAL - B (For 24 Project Sites)	54,037,272

* Assumes 24 project sites in Y1-Y3 and another 24 project sites in Y3-Y5.

	Project Category/Activities	Cost/Project Site for 5 Years (₱)
C.	Community-Based* Forest Protection (Incentive Package Cost in Cash or in Kind)	
	1. Community Forest Protection Patrol @ ₱250/person/mo to cover 50 hectares, 300-500 hectares per project site	90,000
	2. Training and Cross Visits	90,000
	3. Insurance Cost	15,000
	4. Administrative Cost (10%)	19,500
	Total	214,500
	5. Inflation (25%)	53,625
	Total	268,125
	TOTAL - C (For 10 Project Sites)	2,681,250
D.	Environmental Education Support	
	1. Development and Testing of Field Practicum Curriculum @ ₱1,000/student for 200 students/site	200,000
	2. Publication and Printing of Materials	100,000
	3. Administrative Cost (10%)	30,000
	Total	330,000
	4. Inflation (25%)	82,500
	Total	412,500
	TOTAL - D (For 20 Project Sites)	8,250,000
	GRAND TOTAL (A-D)	349,868,522

PROPOSED INSTITUTIONAL DEVELOPMENT PROJECT FOR CBRM PROGRAMS

A. RATIONALE

Institutional strengthening effort of RRDP has resulted in the development of appropriate community-based resource management (CBRM) technologies and approaches and produced highly trained project staff and farmer-trainors. It has also encouraged the establishment of farmer's organizations which have been taking over most of the projects RRDP has started and are now evolving into a multi-tiered network, that is, small work groups at the bottom constitute respective associations or cooperatives which, in turn, form local federations and ultimately an umbrella organization at the national level. (cf. Proposed Agroforestry Support program.)

RRDP has likewise put in place the tested technologies for rehabilitating the degraded uplands and mangrove zones, established demo farms and on-farm trials, and installed such physical facilities as training centers, multi-purpose buildings, and nurseries -- altogether serving the information and material needs of the farmers and, to a certain extent, the implementation of the ISFP in the respective areas.

To take advantage of these accomplishments and the resources in place, follow-on activities have to be undertaken. These resources could now be mobilized not only to accelerate socio-economic development within the present RRDP sites, but also to support the CBRM components of such on-going programs as the ISFP, CFP, NFP, NRMP, SECAL. To achieve this, however, the necessary institutional mechanism must be established, along with the conduct of a complementary training program, to consolidate the RRDP gains and integrate these into the mainstream of current development undertakings.

This proposed project, therefore, is addressed at these requirements. It proposes the full utilization of the RRDP sites and developing these into Environment and Natural Resources Centers (ENRRC) to serve as focal points for consolidating and integrating the gains and, at the same time provide a unifying element to the separately implemented CBRM programs at the field level.

Through the envisioned Center's facilities and staff, complementary training will be conducted or coordinated to upgrade the skills of concerned government field personnel and to enable the farmers to benefit from the tested agroforestry techniques and technologies as well as the off-farm livelihood enterprise to be promoted within the supposed service area of the Center. Appropriate training will also be conducted to upgrade

the management and other required skills of the Center staff. Likewise, linkages with research and training institution will be established to further enhance the Center's operational effectiveness.

B. GENERAL OBJECTIVES

1. To establish the institutional mechanism for the consolidation and integration of RRDP gains into the mainstream of on-going CBRM programs;

2. To facilitate the replication of applicable techniques and processes in the implementation of the said programs; and

3. To promote/accelerate agroforestry and off-farm livelihood enterprise development among the communities in the uplands and mangrove/coastal zones pursuant to the national goal of environmental conservation and protection.

C. PROJECT COMPONENTS

The proposed project has two major components, namely: (a) establishment of the ENRRC, and b) conduct of a complementary training program.

1. Establishment of the ENRRC

This involves the development and actual operation of the Center.

a. Specific Objectives

- To establish the physical venue and center for training, info dissemination, and applied research.
- To provide an institutional base for field level consultative meetings, participatory planning and operational coordination of CBRM programs.
- To facilitate or initiate the provision of material and technical assistance for the development of suitable livelihood enterprises in the uplands and mangrove/coastal zones.

b. Component Activities

To achieve the objectives, the following activities will be undertaken:

- o Maintenance/upgrading of physical facilities and equipment of the ENRRC.
- o Maintenance of seedling nurseries, seed farms, demo farms, livestock breeding operation for the dual purpose of technology demonstration and supplying the input requirements of the farmers.

- o Piloting/demonstration of new techniques and technologies, such as on waste recycling, varietal trials, agri-based processing, and tools development conducive to both economic productivity and environmental conservation -- through joint project undertaking with concerned agencies, institutions and private manufacturing firms engaged in product R & D.

- o Upgrading of management and technical skills/capabilities of the Center staff and maintain strong institutional linkages with government offices, non-government organizations.

- o Facilitate, coordinate, and/or conduct training of farmers and field level program/project implementors in collaboration with concerned agencies, NGOs, the academe and training institutions.

- o Facilitate, coordinate, and initiate field level participatory planning and operational coordination of CBRM program implementation among the concerned personnel and target beneficiary groups within the Center's area of coverage.

- o Manage and operate income-generating projects apart from the business-like operation of the Center, to complement the livelihood enterprises to be promoted in the area, serve as training ground and model of effective business management to the client groups, and generate regular revenue for the Center maintenance.

- o Maintain business-oriented relationship with credit/ marketing institutions as well as manufacturing/ processing firms to facilitate flow of services, inputs and products, and information on supply and demand to guide production thrusts and economies-of-scale in agroforestry and off-farm livelihood ventures to be promoted in the area.

2. <u>Conduct of Training Program</u>

This involves training of ENRRC staff, farmer-participants and field personnel of on-going CBRM programs (ISFP, CFP, NFP, NRMP, SECAL).

a. Specific Objectives:

- To disseminate the tested technologies, techniques and processes in the implementation of on-going CBRM programs among field personnel farmer-participants

- To enhance the ability of the field personnel to identify/appreciate and accordingly respond to issues, problems and needs in their respective areas of assignment giving due consideration to existing potentials and constraints.

- To develop management and technical capability of the ENRRC staff.

- To develop the ability of farmer-participants to engage in business-like agroforestry and off-farm livelihood enterprise ventures.

- To organize/strengthen farmers' associations and cooperatives to facilitate sourcing and delivery of services, community effort, and people's empowerment.

b. Component Activities

To achieve the objectives, the following activities will be undertaken:

1) Preparation of the design and conduct of the training as follows:

- Skills Upgrading of all CDOs/CDAs of ISFP and of other DENR program field personnel on:

  o Project Planning (including RRA and Management KFP techniques)
  o CO/Extension Work
  o ENR tested technologies (SWC, multi-cropping, waste recycling, etc.)

- Trainors-training of prospective farmer-trainers on:

  o Farm Planning and Development
  o Agroforestry technologies
  o Off-farm livelihood Enterprise to be promoted based on market studies and potential of the area

- Skills enhancement among farmers association and cooperatives on:

  - o RRA/KFP techniques
  - o Project Packaging/Credit-Sourcing
  - o Business Planning and Management
  - o Business Administration/Finance

- Skills development/upgrading among ENRC staff on:

  - o Center Operation/Maintenance
  - o Business Management
  - o Project Packaging/Feasibility Studies
  - o Technology R & D
  - o Livelihood Enterprise Development
  - o Clientele Training and Info Dissemination (including Cross-Farm visits)

2) Prepare/Coordinate preparation of training venue and materials. This includes:

   - Preparation of the training facilities at the Center and selected satellite sites/venues, including demo farms, on-farm trials, and other venues for cross-farm visits as well as practicum/social laboratory type of learning-enhancing techniques. These satellite sites will include Model ISFP sites within the Center's area of coverage.

   - Preparation of audio-visual aids like VTRs, charts, maps, pictorials and published/unpublished reading materials.

3) Maintain operational coordination and linkage with the HRD units of DENR and other government agencies, as well as with the academic and training institutions for the needed support in terms of:

   - Resource persons/facilitators
   - Assistance in the preparation of training designs and training materials
   - Training facilities as satellites venues of the center
   - Info dissemination/liaisoning

D. STRATEGY OF IMPLEMENTATION

1. Project Scope/Duration

The project is proposed to cover all the six regions with the phasing-out RRDP-ENR agroforestry projects, namely, Regions 5, 6, 7, 8, 10 and 11. This does not, of course, preclude possibilities of expanding the project coverage to the other regions of the country.

Every Center (ENRRC) to be established in each of the six regions will have the respective target areas of corresponding CBRM programs (ISFP, CFP, NSFP, NRMP, SECAL) as its area of coverage. The Center's clientele group, therefore, includes the farmers, farmer's organizations, and assigned government field personnel within the area. Similarly, identification of prospective ally agencies, NGOs, research/training institutions as well as business firms and organizations for the envisioned Center's linkages will have to be based on common concerns or interests in this area.

Likewise, the training activities to be undertaken will be limited to the project's concern as spelled out earlier. While these trainings are to be primarily based at the Center, the preparation of the design and actual conduct of the training may be undertaken by the HRD units of the respective programs, ally agencies, institutions and organizations depending on their interest and capabilities. In this case, the Center will simply provide facilities, manpower, coordination support as may be required. Otherwise, the Center will have to take initiative, prepare the design and conduct the training in coordination/collaboration with the said HRD units and ally agencies/institutions pursuant to the objectives of this proposed project.

Project duration is 5 years.

2. Institutional Roles and Linkages

Implementation of the project will be a collaborative effort of the DENR, the local Government Units, the people's organization, and the Support NGOs.

The collaborative effort will be governed by the same policies adopted by DENR underlying the rationale behind this project. These are, namely, to promote people empowerment and community participation, to make them active partners of government in resource conservation and enable them to pursue economic well-being in a sustainable way.

Thus while institutional roles are to be performed to insure project success, the direction of the collaborative effort will be towards the strengthening of the people's organizations, enabling them to eventually assume the lead role of mobilizing the respective communities with the government and the support NGOs merely providing the supportive role.

As shown in Figure 2.1, the people's organizations are envisioned to manage the Center (ENRRC). The DENR, in implementing the project, will perform a basically "nursemaiding" role, seeing to it that the people's organizations will be already capable to sustain the Center and its activities at the end of the project period. The support NGOs participating in the project will complement DENR's effort and extend the needed assistance for the same objectives.

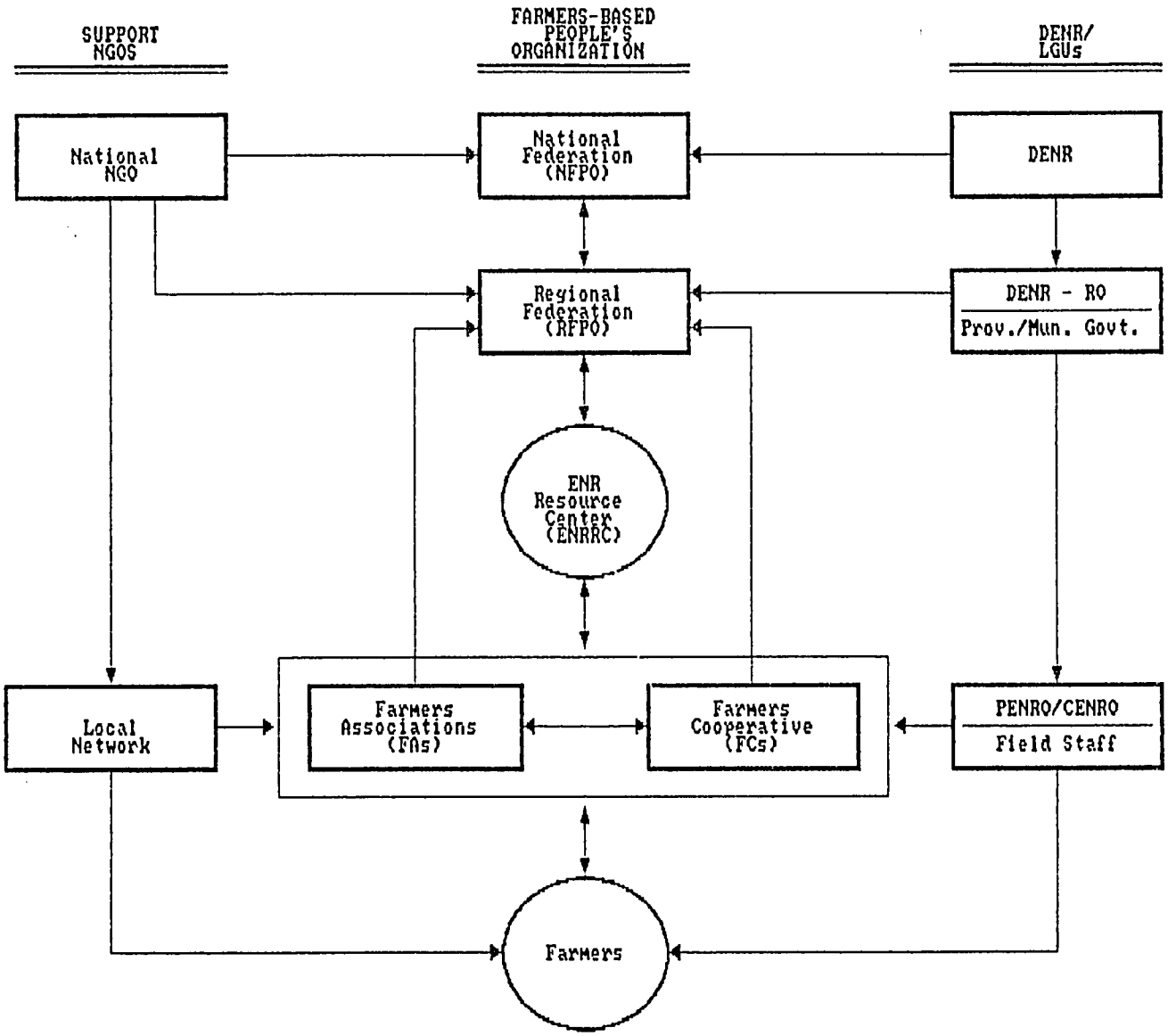
The People's Organizations

People's organizations consist basically of the farmer's associations (FAs) and cooperatives (FCs) which have taken over the RRDP projects and facilities in the respective sites in the uplands and mangrove/coastal zones. These organizations are now undergoing the trend of forming into a federations or umbrella organizations along with community-based non-government organizations, to unify their efforts and expand its network regionwide in the respective regions.

These farmer-based federations are thus envisioned to perform the role of the Regional Federation of People's Organizations. These will manage the ENRRCs and take charge of institutional linkages and coordination at the field level.

Furthermore at this stage, the people's organization of the various RRDP sites have already initiated nationwide unification by forming a national federation to which they are affiliated. This federation is thus envisioned to act as the National Federation of People's Organization and takes charge of representing the regional and community-based upland organization in national level linkages and coordination.

FIGURE 2.1. INSTITUTIONAL LINKAGES AND SUPPORT SYSTEMS



The DENR

As the implementing agency of this project, and implementor of the various CBRM programs (ISFP, CFP, NFP, NRMP, SECAL), the DENR will see to it that the project activities will be orchestrated with those of the said programs to facilitate the delivery of project's support to the latter, in terms of training, community organization, info dissemination and extension; and eventually, the link-up of the respective programs' beneficiary associations with the people's organization network to hasten the process of people empowerment.

DENR's field level linkages will be effected through its Regional Offices. The latter will link with the Provincial Governments which, in turn, link with the concerned Municipal Government to facilitate the respective LGUs support to the project. With the enactment of the Local Government Code, the LGUs will have, among others, direct supervision over the PENROs and the CENROs which are the implementing field offices of the DENR to date and up to the time the Code takes effect, that is, next year (1992).

DENR's main role in the project is in the form of fund sourcing and allocation for the project's budgetary requirement, fund administration, and overall project management and supervision.

The Support NGOs

These are the large non-government organizations which are not community-based but have the corporate mission and the capability to provide funding and /or institution-building assistance to community-based programs and projects geared at poverty alleviation, people's empowerment, and environmental conservation. One of these NGOs will be solicited to participate and serve as the Support NGO in the overall scheme of things to provide support to the financial and institutional needs of the RFPOs and affiliate organizations, such as in the upgrading of ENRRC facilities and promoting livelihood enterprise development.

3. Implementation by Phases

Implementation of the project will be done by phases.

Phase I

This involves physical preparation to develop the RRDP sites into ENRRCs, and organization and training of the staff to manage the Centers. Physical preparations include the upgrading of these Center facilities and equipments,

demo forms, nurseries and animal breeding facilities to meet the project requirements. These will be undertaken by the RFPOs and affiliate organizations. Infrastructure support, such as improvement of access road, will be provided by the Local Government. The envisioned Center staff will come from the trained and experienced RRDP staff, and the farmers-trainors and other skilled members of the Federation.

At this stage, strengthening of FAs and FCs within the site will be accelerated. This will be in the form of capital build-up and livelihood enterprise development with the end in view of establishing among others, model livelihood enterprises in the ENRRC site to demonstrate off-farm livelihood technologies and business management as part of the info dissemination and training components of the project.

At this stage, too, establishment of linkages with other institutions; conduct of consultative meetings, participatory planning and operational coordination of CBRM program implementation; and info dissemination will be already initiated by the ENRRC.

Phase II

This involves skills enhancement through training of field staff implementing CBRM projects in the region, starting with the ISFP staff (CDOs and CDAs) assigned in the target ISFP sites. Part of the training will be a practicum course on the conduct of RRAs and market studies.

After the training, the staff will be required to undertake follow-on activities in their respective areas. These includes:

- Preparation in their areas of assignment the appropriate training facilities for the training of their own farmer clientele group. These facilities may be utilized later on as satellite venues of ENRRC.

- Accelerate CO and technology dissemination/extension work adopting the technologies and techniques learned during the training.

Institutional capability build-up will be also undertaken among the FAs/FCs organized by the field staff in the target ISFP sites. This will be in the form of business and technical skills training of key members to enable the said organizations to efficiently manage their respective livelihood enterprises.

Phase III

This involves the institutional linking-up of the farmers' organizations (FAs and FCs) organized by the field staff to the network of the people's organizations or Federation with main headquarters based at the ENRRC. It also involves continuing promotion of alternative off-farm livelihood enterprises which includes:

- assistance in project packaging/fund-sourcing and negotiations

- input supply and product marketing support

Furthermore, on-going info dissemination, applied research and other regular activities of the ENRRC will be maintained.

4. Organization and Management

To implement the project, a system of organization and management will be set-up to ensure proper coordination in the execution of the various undertaking (see Figure 2.2).

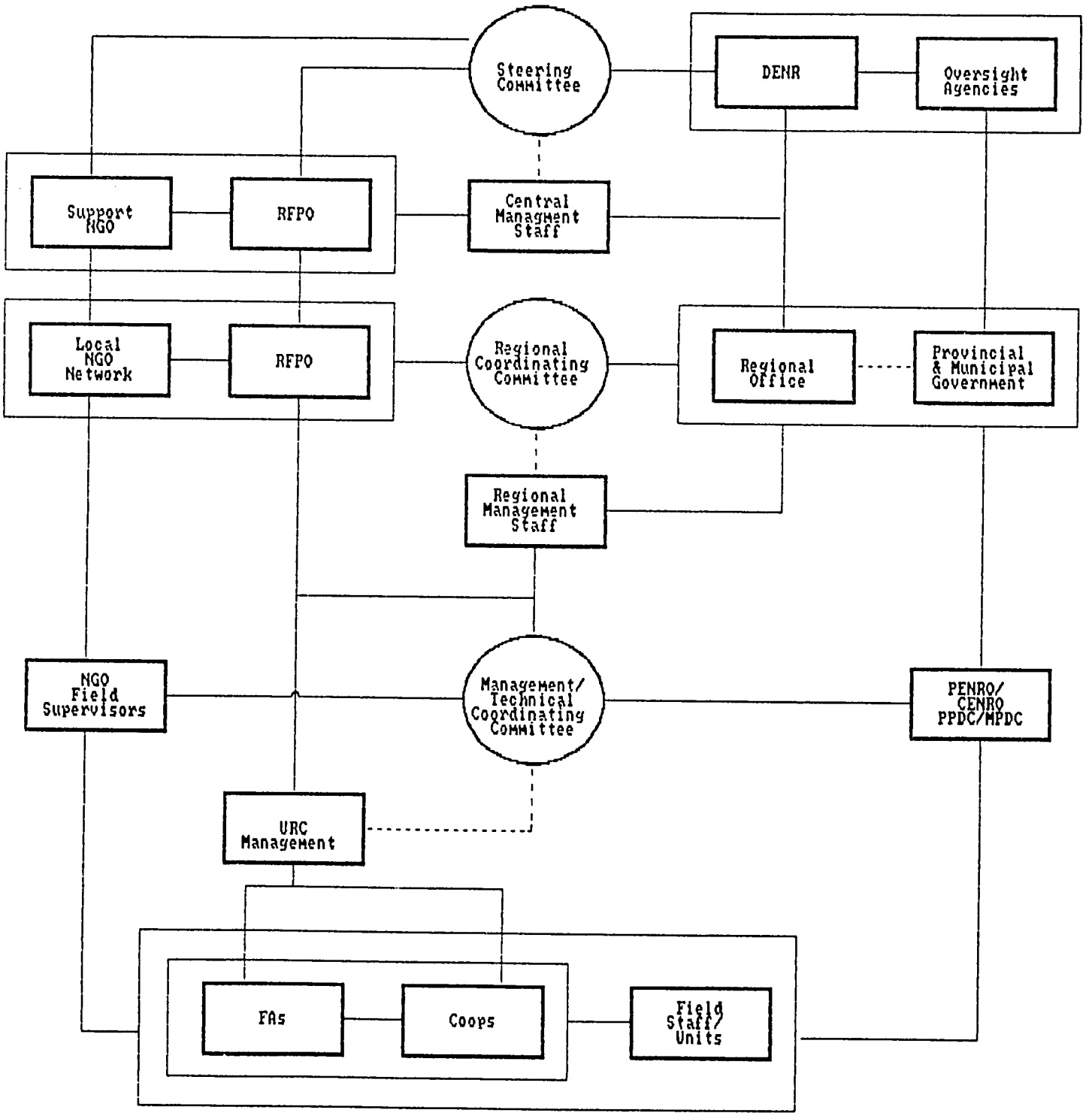
Project Coordination

Top-level coordination will be provided by a Steering Committee composed of the heads of the DENR, the Oversight Agencies (NEDA, DBM), the NFPO, and the participating support NGO. This body will provide policy coordination and guidance in the formulation and implementation of project plans.

Operational coordination at the regional level will be provided by a Regional Coordinating Committee to be composed of the heads of the DENR Regional Office, the Provincial Governments the concerned Municipal Governments, the RFPO, and the local support NGO network. This body will provide coordination in the planning and programming of relevant activities and resources under the control of the respective entities which
have been committed pursuant to the objectives of the project. These include the pertinent activities and resources of the on-going CBRM programs and projects.

At the field implementation level, coordination will be provided by a Management and Technical Coordination Committee to be composed of the Regional Management Staff, the PENROs/CENROs, the Provincial Planning and Development Coordinators (PPDC), the concerned Municipal Planning and Development Coordinators (MPDC), and the NGO field supervisors. This body will provide coordination in the implementation of field activities. It will also act as

FIGURE 2.2. O & M FRAMEWORK



an advisory body to the ENRRC staff who which will, in turn, serve as its secretariat.

Project Execution

Execution of the project will be managed by a Project Management Staff (PMS) under the administrative control of the DENR. The staff will take charge of executing the guidelines with respect to administration of DENR funds; and coordinating the execution of policies and decisions made by the Steering Committee and the Regional Coordinating Committees where it serves as the Secretariat.

The PMS will be an ad hoc unit composed of two levels: the Central Management Staff (CMS) and the Regional Management Staff (RMS).

The CMS will be under a Project Execution Board composed of the national coordinators of the ISFP, NFP, CFP, NRMP, SECAL, to be attached to the Office of the USEC for Operation or the USEC for Foreign-Assisted on Special Projects as the case may be. The veteran RRDP CPS staff could very well serve as the core staff of this unit.

The RMS will be under the Office of the Regional Executive Director. It may be composed of detailed regional staff. The veteran RRDP field staff could also serve as the core staff of this unit.

While the CMS serves as the Secretariat of the Steering Committee and works with the NFPO and the Support NGO in the execution of its duties, the RMS serves as secretariat of the Regional Coordinating Committee and works with the RFPO in providing support to the ENRRC management. The latter will serve as the PMS link to the project's ultimate beneficiary groups -- the farmers' associations and cooperatives -- who will undertake pertinent activities under the supervision of the ENRRC management; and the Field Staff (of on-going programs) when the latter undergo skills capability build-up under the auspices of the Center.

ENRRC Management and Maintenance

The ENRRC will be managed by RFPO officers and staff and under the administrative control and supervision of the Federation's Board of Directors, through its President who may also act as the ENRRC manager.

ENRRC operations will be guided by the policies enunciated by the Steering Committee through the NFPO, and on detailed plans approved by the RFPO Board.

Management and technical advice will be provided by the Management and Technical Coordination Committee. The Regional Management Staff also extends management support, especially in facilitating matters that deals directly with DENR's own concerns, e.g., fund releases and assistance from DENR's field staff.

While funding assistance for upgrading the Center facilities may be provided by the support NGO in the form of grant or subsidy, the overhead cost for maintaining the Center will be the counterpart contribution of RFPO.

Center maintenance will be sustained out of the incomes that the Center will derive from its operation, such as getting contracts from DENR for the conduct of training programs, livelihood enterprises, extension of credit/marketing services and supply of inputs to client groups through the affiliate organizations.

Project Monitoring and Evaluation

Management monitoring and evaluation of project activities and accomplishments will be a function of the PMS. The regional staff (RMS) conducts periodic monitoring/evaluation of ENRRC performance as well as that of the Field Staff (through the Management and Technical Coordination Committee). Reports will be submitted through the RED to the CMS which will, in turn, conduct the review and evaluation and submits the consolidated report to the Project Execution Board and/or the Steering Committee as the case may be.

E. TARGET ACCOMPLISHMENTS

Within a period of 5 years, the project envisions to accomplish the following;

1. Establishment of fully operational ENR Resource Centers (ENRRCs) and satellites in each of the seven regions, namely, Regions 5, 6, 7, 8, 10, 11 and 12, which will serve as:

   - Training Center for skills enhancement and institutional capability build-up for the development of the communities in the uplands and mangrove/coastal zones.

- Operational venue for field level coordination of the implementation of ISFP and other community-based resource management (CBRM) programs of the government.

- Supply base of farm/off-farm livelihood inputs and source of credit and marketing assistance/services for the farmers.

- Center for applied research and info dissemination on CBRM technologies and technology transfer techniques.

2. Advance training of 3 key staff members of each of the seven (7) ENRRCs, to manage and undertake its various activities.

3. Skills upgrading of at least 150 field supervisors and assistant staff (CDOs/CDAs) assigned to implement the ISFP in the targeted 128 old and new ISFP sites (see Proposed Agroforestry Support Program). These personnel are expected to apply what they learned in the other ISFP sites assigned to them aside from the targeted ones.

4. Provide manpower, facilities and coordination support to the farmers-trainors' training involving a total of 1,408 trainees, and the other activities envisaged in the separately proposed Agroforestry Support Program (supra).

5. Conduct of business and technical skills training to enhance the institutional capability of the FAs and FCs in the target 128 old and new ISFP sites, at the average of two organizations/site and two trainees/organization or a total of 510 prospective business and production managers.

6. Piloting and demonstration of technologies to be promoted in the uplands and mangrove/coastal zones, such as waste recycling, agri-based processing, new high-yielding varieties/breed of plants and livestock, and so forth.

7. Dissemination of information through production and distribution of mass communication materials to user institutions and groups (schools, research and training institutions, students, media), and in support of the implementation of the ISFP and other CBRM programs/projects in the respective regions.

F. SCHEDULE OF MAIN ACTIVITIES

Main Activities	Year 1	Year 2	Year 3	Year 4	Year 5
Phase I:					
ENRRC Physical Development/Institutional Preparations					
- Organization/Training of ENRRC Staff					
- Upgrading of ENRRC facilities (buildings/equipments)					
- Access road improvement by Local Government					
- Establishing linkages with academic,research, training, credit, marketing institutions					
- Technology piloting and demonstration (on-going)					
- Info dissemination (on-going)					
Phase II:					
Skills Development/Institutional Capability Build-up					
- Skills upgrading of ISFP field staff					
- Business/technical skills training of key FA/FC members					
- On-going support to proposed Farmer-trainors training (cf. Agroforestry Support Program)					
Phase III:					
Strengthening/Expansion of People's Organization Network					

G. INDICATIVE BUDGET (in thousand Pesos) *

Item	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1. Personal Services						
- Salaries	150.0	157.5	165.4	173.7	182.4	
- Honorarium/Allowances	60.0	63.0	66.0	69.0	72.0	
- Techn'l Assistance	132.0	187.9	193.2	215.0	230.0	
Sub-total	342.0	408.4	424.6	457.7	484.4	2,117.1
2. MOE						
- Travels/Per diem	25.0	25.0	20.0	20.0	25.0	
- Transportation/ Communication	12.0	12.6	13.2	13.9	14.3	
- Office Supplies/ Materials	25.0	30.0	35.0	40.0	45.0	
- Miscellaneous	7.4	8.5	10.2	11.1	12.6	
Sub-total	69.4	76.1	78.4	85.0	96.9	405.8
3. Management/Technical Training for ENRRC Staff @P5,000/staff x 3 x 7	105.0					105.0
4. Skills Upgrading of ISFP Field Staff @ P 3,000/ Staff x 150		300.00	150.0			450.0

Excluding capital outlay, maintenance and operating costs of ENRRC. These are treated as separate concerns of the respective RFPOs, the support NGO, and the LGUs.

Item	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
5. Business/Technical skills training for FA/FC members @ P 2,000/persons x 550		100.0	200.0	400.0	400.0	1,100.0
6. Technology Piloting/Demo	525.0	577.5	635.3	698.8	768.7	3,205.3
7. Info Dissemination (Production/ Distribution of Info materials)	250.0	275.0	302.5	332.8	366.0	1,526.3
8. Contingencies (10% of 1-7)	129.1	173.7	179.1	197.4	211.6	890.9
9. Inflationary Adjustment (10% of 1-8)	142.0	191.1	197.0	217.2	232.8	980.1
TOTAL	1562.5	2101.8	2166.9	2388.9	2560.4	10780.5

CHAPTER 3

CONTRACT REFORESTATION

CONTRACT REFORESTATION

EXECUTIVE SUMMARY

The five contract reforestation projects are briefly described especially in terms of the different project components, area coverage and the status of community participation to the project implementation.

Each project site was assessed using a PRRA survey questionnaire prepared and then verified during the series of regional and national consultative workshop conducted. The outputs are in the form of lessons learned (both positive and negative aspects) and some relevant policy issues or recommendations.

Site-specific follow-on project proposals were presented for 3 reforestation projects. No follow-on activity was proposed for the other 2 projects because one was totally damaged by volcanic eruption while the other one is now under DENR's administration after it was abandoned by the contractor because of very poor performance.

A. PROJECT DESCRIPTION

There are five reforestation project contracts awarded under RRDP - 3 in Luzon and 2 in Visayas (Figure 3.1). The brief profile description of each project site is shown in Table 3.1 and separately discussed below.

1. Bagman Reforestation Project

This is located at Bamban, Tarlac. It was contracted to the First Philippine Holdings Corp. and implemented by its subsidiary company, Tree Resources & Environment Enterprises (TREE) from April 1989 to September 1991. The project covers a total area of 1000 ha: 592 ha planted through conventional refo; 204 ha developed through assisted refo regeneration (ANR) scheme; and 87 ha agroforestry (AF) area; 40 ha fireline and the rest (77 ha) are inoperable area. Income enhancement planting (IEP) was also introduced in the project. This consist of allowing the community participants to interplant cash or subsistence crops in-between planted tree seedlings in the meantime that the latter are still small. In effect, the reforestation approach consists of integration of several schemes (i.e., contract reforestation + ANR + AF + IEP) with the active participation of the community. The community benefits directly through cash

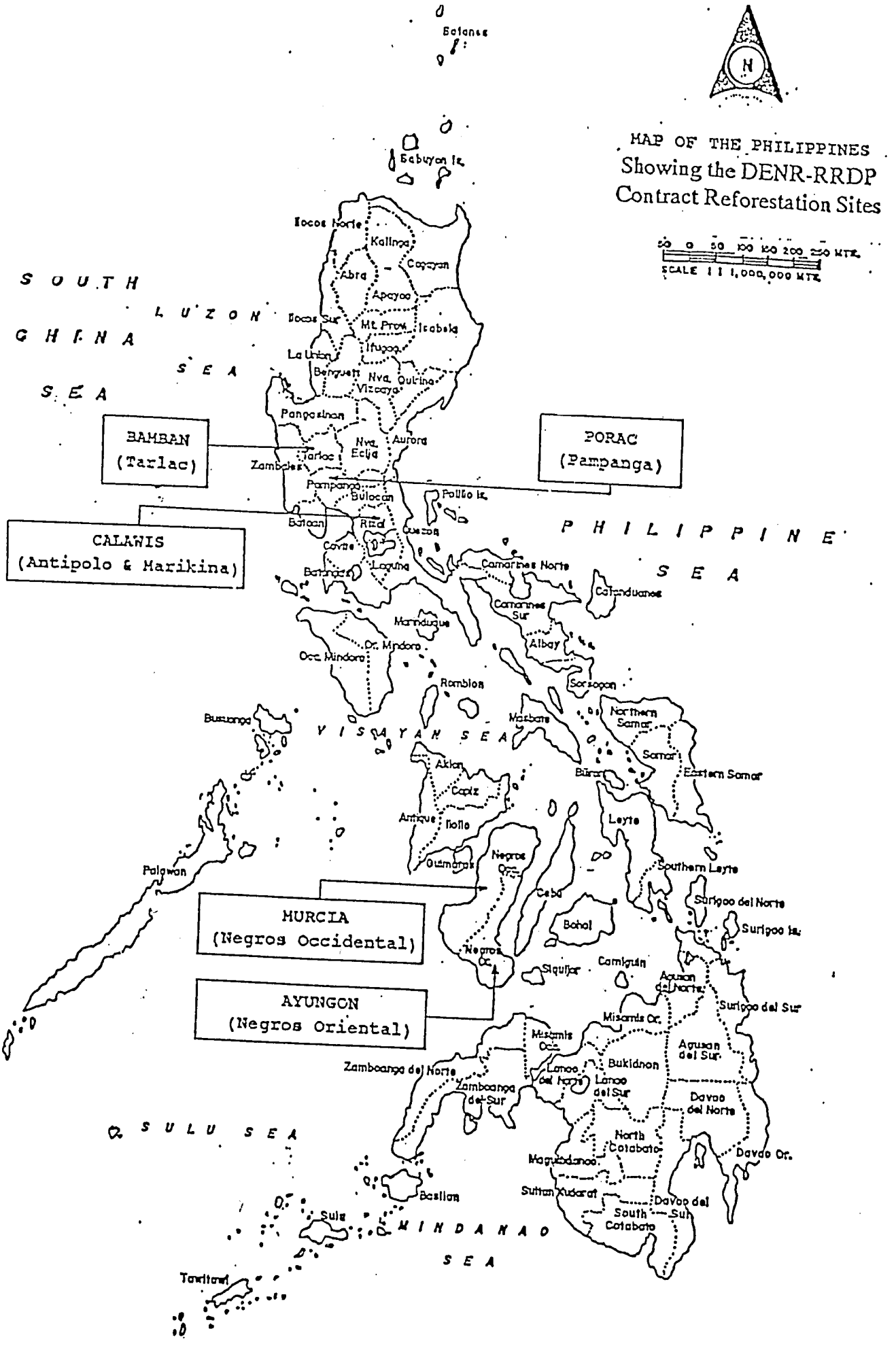

MAP OF THE PHILIPPINES
Showing the DENR-RRDP
Contract Reforestation Sites
SCALE 1 : 1,000,000 MTR.
N
Batanes
Babuyan Is.
Ilocos Norte
Kalinga
Cagayan
Abra
Apayao
Ilocos Sur
Mt. Prov.
Isabela
Ifugao
La Union
Benguet
Nva. Vizcaya
Quirino
Pangasinan
Aurora
Nva. Ecija
Tarlac
Zambales
Pampanga
Bulacan
Polillo Is.
Bataan
Rizal
Quezon
Cavite
Laguna
Batangas
Camarines Norte
Catanduanes
Camarines Sur
Albay
Marinduque
Or. Mindoro
Occ. Mindoro
Romblon
Sorsogon
Masbate
Northern Samar
Samar
Eastern Samar
Biliran
Leyte
Southern Leyte
Surigao del Norte
Surigao Is.
Aklan
Capiz
Antique
Iloilo
Guimaras
Negros Occ.
Cebu
Bohol
Siquijor
Camiguin
Agusan del Norte
Misamis Occ.
Misamis Or.
Agusan del Sur
Surigao del Sur
Bukidnon
Lanao del Norte
Lanao del Sur
Zamboanga del Norte
Zamboanga del Sur
Davao del Norte
North Cotabato
Davao Or.
Maguindanao
Sultan Kudarat
Davao del Sur
South Cotabato
Basilan
Sulu
Tawitawi
Palawan
BAMBAN
(Tarlac)
PORAC
(Pampanga)
CALAWIS
(Antipolo & Marikina)
MURCIA
(Negros Occidental)
AYUNGON
(Negros Oriental)
SOUTH CHINA SEA
LUZON SEA
PHILIPPINE SEA
VISAYAN SEA
SULU SEA
MINDANAO SEA

Table 3.1. Profile of RRDP Contract Reforestation Projects

Name & Location of Project	Contractor	Area	Start Date	Remarks
Bamban Refo Project (Bamban Tarlac)	Tree Resources and Environment Enterprises (TREE) under First Philippine Holdings Corporation	592 ha conv. refo 204 ha ANR 87 ha AF 40 ha fireline 77 ha inoperable area 1000 ha Total	April 1989	Heavily affected by Mt. Pinatubo's eruption; 30 Aeta participants now in refugee camps
Porac Refo Project (Porac, Pampanga)	Center for Research, PLanning and Strategic Studies (CRPSS)	194 ha conv. refo 90 ha AF 16 ha fireline 300 ha Total	May 1989	Totally damaged by Mt. Pinatubo; Aeta participants now in refugee camps
Calawis- Antipolo Integrated Agroforestry and Refo Project (Antipolo, Rizal)	Manila Seedling Bank Foundation, Inc. (MSBFI)	100 ha refo via nurse climax scheme 36 ha ANR 44 ha AF 20 ha fireline 200 ha Total	Nov 1988	17 participants but not yet formally organized
Murcia Refo Project (Murcia, Negros Occ.)	Negros Forest and Ecological Foundation, Inc. (NFEFI)	10 ha conv. refo 78 ha ANR 105 ha AF 30 ha communal refo 223 ha Total	Nov 1988	105 participants already organized into cooperative
Ayungon Refo Project (Ayungon, Negros Or.)	TEACH Foundation, Inc.	90 ha refo 50 ha AF 10 ha fireline 150	Nov 1988	Failure (only 40 ha forested with only 30% survival); project abandoned by TEACH

derived from either labor wages or subcontracts in reforestation and ANR, or food and cash from AF and IEP components.

Unfortunately, the project was heavily affected by Mt. Pinatubo's eruption on June 1991. The survival rate was markedly decreased from 2000 trees/ha to only 305 trees/ha after the eruption. Nevertheless, these surviving trees are showing signs of full recovery especially because many of them have been given rehabilitation treatments (e.g. pruning and propping of dropping trees). The participating Aeta community (30 active members) was already organized into an association and was about to be formed into a cooperative when Mt. Pinatubo erupted. Presently, these Aeta participants are in various refugee centers.

2. Porac Reforestation Project

This is located at Porac, Pampanga. It was contracted to the Center for Research Planning and Strategic Studies (CRPSS) from May 1989 to September 1991. The project covers a total area of 300 ha: 194 ha conventional refo.; 90 ha AF; and 16 ha fireline. The entire project was totally damaged by Mt.

Pinatubo's eruption and the Aeta participants are now in several refugee camps.

3. Calawis-Antipolo Integrated Agroforestry and Reforestation Project

This is located at Antipolo, Rizal. It was contracted to the Manila Seedling Bank Foundation, Inc. (MSBFI) from November 1988 to September 1991. The project covers a total area of 200 ha: 100 ha reforested through the nurse-climax tree planting scheme; 36 ha developed under ANR; 44 ha agroforestry with 1 ha as demonstration area; and 20 ha fireline. Hence, the reforestation approach is also an integration of several schemes with the community providing active participation. There are 17 community member participants, divided into three workgroups of 4-5 members each. However, they have not yet been formally organized into an association or cooperative. Nevertheless, some initial assistance given to them include the following: planting materials for their agroforestry farms; seminars and on-the-job trainings (OJT) especially on seedling production, plantation establishment, maintenance and protection.

4. Murcia Reforestation Project

This project is within the 1000 ha Bacolod City Water District (BACIWA) watershed, Murcia, Negros Occidental. It was contracted to the Negros Forest and Ecological Foundation, Inc. (NFEFI) from November 1988 to September 1991. The project covers a total area of 223 ha: 10 ha contract reforestation; 78 ha ANR; 105 ha AF farmlot; and 30 ha communal reforestation. There are 105 participants from 3 sitios and they are already organized into a cooperative. Hence, this reforestation project can also be considered as a com-based, integrated approach.

5. Ayungon Reforestation Project

This is located at Ayungon, Negros Oriental. It was contracted to TEACH Foundation, Inc. on November 1988. However, the contract was terminated by DENR-USAID on December 1990 due to poor performance in project implementation by the contractor. For instance, out of 90 ha target for refo., only 40% was accomplished and with only 30% survival; and out of 50 ha intended for AF development, only 1.5 ha was established. The association of participants organized by TEACH is now inactive/disorganized. In the first place, the method of community organizing was accordingly defective because many participants were "imports" from outside the project area while many farmers

in the area were not included. The project has been under the administration of DENR starting on July 14, 1991.

B. SITE ASSESSMENTS; LESSONS LEARNED AND RELEVANT POLICY ISSUES/RECOMMENDATIONS

The assessment of the contract reforestation projects was undertaken with the following two major outputs in mind: a) major lessons learned, consisting of both the positive lessons learned ("plus" factors) that should be institutionalized into DENR's major programs, and the negative experiences, constraints, limitations ("minus" factors) which should be remedied, to sustain or strengthen the gains of the project, and b) policy issues/recommendations related to contract reforestation projects.

Discussed below are the outputs of the assessment. These are based from PRRA results and outputs from the three regional and one national workshops.

1. Lessons Learned from Contract Reforestation Projects

The major lessons learned from the RRDP contract reforestation projects (except from Porac and Ayungon projects which were totally destroyed and terminated, respectively) are summarized in Table 3.2 and separately discussed below:

a. Bamban Reforestation Project

The "plus" factors (positive lessons learned) include the following: (a) Integrated approach to forestation, (i.e., contract reforestation + ANR + AF + IEP) with the active participation of the community is a very effective strategy. This is so because the community participants are directly involved in "pump-priming" activities while they are at the same time developing their agroforestry farms (which were secured tenurially through CSC). During the initial phase of project implementation, it was observed that the Aeta participants tended to ignore working in their agroforestry farms because their activities were concentrated in the "pump-priming" activities like contract reforestation because of the immediate cash reward. However, this was resolved through a "5-day reforestation + 2-day AF work per week" allocation scheme. In other projects, this problem was avoided because of "bayanihan" or through subdivision into several workgroups; (b) Income Enhancement Planting (IEP) reduced maintenance cost of tree plantation. This is so because the interplanting of cash or food crops in-between tree seedlings results to cultivation/soil loosening and weeding benefiting both species. The other added advantages from IEP are the maximum utilization of space and the provision of partial shade to improve growth and survival; and (c) Lodging (simple pressing or trampling down) of cogon's above-ground biomass is a very cost effective method of controlling cogon growth. The shading of the lodged biomass on the new sprouts from the underground rhizomes results to reduced photosynthesis and the gradual exhaustion of the stored food in the rhizomes.

On the other hand, the following comprise the "minus" factors: (a) Problem of site selection. The area was already about 60% reforested when it was discovered that it is a part of military reservation; (b) Adverse effects of Mt. Pinatubo's eruption. The plantation area was damaged (only 15% survived) and the Aeta community participants which were already organized into association are now in various refugee centers; (c) If the plantations are not maintained and protected, non-participants might settle or occupy the area.

Table 3.2. Summary of Major Lessons Learned ("Plus" and "Minus" Factors) from the RRDP Contract Reforestation Projects

PROJECT	"PLUS" FACTORS	"MINUS" FACTORS
1. *Bamban Contract Refo*	- Integrated approach (conv. refo + ANR + AF + IEF) is very effective. Earlier conventional refo with agrof. retarded continuous work of Aetas in their own farms. This was resolved through "5-day refo + 2-day AF per week" allocation scheme.	- Problem of site selection --area part of military reservation (DND) - Effects of Mt. Pinatubo --less than 20% survival; Aeta community organized into association now in different refugee centers
	- IEP reduced maintenance cost of plantation - Lodging/pressing of cogon very effective control measure	- If forest plantations not maintained/protected, settlers/others might return and destroy them
2. *Murcia (BACIWA) Contract Refo*	- "Community forestry patrols" formed --very effective (former illegal loggers, now patrol members - Participants already formed into coop. - Conventional refo + ANR + AF is very effective - Contractor willing to continue to provide technical assistance to communities in CR, AF and cooperative strengthening - BACIWA contributes P5,000/mo. for forest protection of the watershed	- Contracted Foundation and community not financially viable - Community needs further TA in implementing CR, AF and coop building - Area is critical watershed although not yet officially declared as such; hence, tree harvesting is not compatible land use - Overall, a 3-year project lifespan not sufficient to evolve a self-reliant community

	PROJECT	"PLUS" FACTORS	"MINUS" FACTORS
3.	*Calawis-Antipolo Integrated AF and Refo*	- Nurse-climax tree planting scheme cum ANR is very effective - Contractor willing and tech. capable to provide assistance - Existence of coop where participants can affiliate - from destructive to "controlled" kaingin making	- Participants not yet organized into assoc. (however, they are desirous to have one) - Seminars and OJT conducted not yet adequate/need to be sustained - Poor accessibility

b. Murcia (BACIWA) Reforestation Project

The "plus" factors consist of the following: (a) The community forestry patrols formed is very effective especially in reducing the illegal logging activity. Noteworthy is the fact that these patrols are composed of former illegal loggers themselves. The only form of incentive is a minimum wage of ₱65/day but they are accordingly willing to settle for non-cash incentives such as farm inputs; (b) Participants are already formed into a cooperative. This does not only give them a legal personality to enter into "pump-priming" contract activities but also a sense of empowerment to solve their own problems and map out their own destiny; (c) Integrated com-based approach (refo + ANR + AF) is very effective strategy; (d) The contractor (NFEFI) is willing and capable to continue to provide technical assistance to communities in implementing different project components and in strengthening their cooperative. This is of course one indication that NFEFI has already established a strong rapport with the people in the area; and (e) Bacolod City Water District (BACIWA) is regularly contributing ₱5,000/month to NFEFI for protection of the watershed. This financial contribution only shows the importance of the watershed for water production for Bacolod City.

The "minus" factors include the following: (a) The contractor (NFEFI) and the cooperative it serves are not yet financially strong. This implies the importance of capital build-up (e.g. through "pump-priming" activities) or infusion of new funds; (b) In reality, the area is a critical watershed although it is not yet officially declared as such. Hence, tree harvesting is not a compatible land use and therefore conversion to FLMA later on is not feasible; and (c) The 3-year project life span is not yet sufficient to evolve a self-reliant community. In fact, the community still needs further technical assistance in

implementing contract refo., AF and ANR and in cooperative strengthening.

c. Calawis-Antipolo Integrated Agroforestry and Reforestation Project

The "plus" factors include the following: (a) The nurse-climax tree planting scheme cum ANR is a very effective strategy. This is so because both schemes are based on the ecological principle of natural plant succession; (b) The contractor (MSBFI) is willing to continue to provide technical assistance to the participants including community organizing; (c) In the meantime that the participants are not yet formally organized into an association or cooperative, they can affiliate with the existing cooperative in the area which is composed mainly of staff of MSBFI; and (d) The community is gradually transformed into a forest conservation-conscious one as indicated by their new method of making kaingin. While before they cut and burn everything during site preparation, now they leave behind some nurse trees and they also minimize burning of dried organic materials.

The "minus" factors include the following: (a) The participants have not yet been organized into an association or cooperative. There should not be any problem organizing the participants because they themselves are clamoring to have one; (b) Seminars and on-the-job trainings especially on agroforestry and soil conservation technologies have to be sustained. Accordingly, some participants are still not applying even the simple soil-conserving practices such as contour planting; and (c) Poor accessibility (8 km. poor road) of the area.

2. Some Policy Issues/Recommendations on Contract Reforestation

Hereunder are some policy issues/recommendations based on the lessons learned and from the interactions with the contractors during the series of consultative workshops.

a. To promote FLMA adoption by contractors, terms and conditions have to be clarified/reviewed/revised. Apparently, there are certain misconceptions on the part of the contractors:

Examples:

1) Perceptions of TREE (corporate contractor):

* issue on equity transfer - uncertainty in the turn-over of at least 50% of the FLMA area to the community.

* issue on financial viability - the contract refo project was not planned for FLMA; ambiguity in the payback scheme of government share.

2) Observations of BURDFI and Samahan ng Ama at Ina sa San Jose Pangasinan, Inc. (community contractor):

* The FLMA grantee will have to shoulder the cost of maintenance and product of the plantation for the first 4 years of FLMA. Moreover, the grantee will also have to shoulder the cost of developing the area (cost of labor and inputs fore intercropping and planting of cash crops). Very few communities and NGO's involved in contract reforestation have the financial capability to shoulder these costs.

  It was suggested by BURDFI therefore that the government should at least "subsidize" the expenses to be incurred during the first four years of FLMA (e.g. through a "counterparting scheme" between DENR and grantee). The estimated cost is from ₱5,000 to ₱6,000/ha to cover maintenance and protection expenses, CO and trainings and administrative overhead (spread over the 4 year period).

Note: * FLMA guidelines may be included for review by Louis Berger group through the Policy Study Component of NRMP.

* As suggested by Mr. Pat Dugan, interplanting of cash crops can be very helpful in making FLMA areas productive especially during the early years of FLMA when revenues are not yet available.

b. Contract proposal evaluation rating, especially those criteria on firm's experience, key staff experience and technical feasibility of the plan, closely correlate with field performance rating of contractor (Table 3.3). Such criteria should therefore be given due emphasis.

c. The following positive experiences gained from RRDP contract reforestation projects should be institutionalized/ sustained.

* Community-based and integrated approach to forestation (i.e., refo cum AF, ANR, EIP, etc.)

* ANR and nurse-climax tree planting schemes as emerging effective ecological approaches to forestation.

Table 3.3. Reforestation Contract Evaluation Rating of the Five Winning Contract Bidders.

EVALUATION CRITERIA	POINTS	SUB-POINTS SCORE	TREE	CRPSS	MSBPI	TEACH	NFBPI
1. Previous experience of the Contractor & key staff in reforestation & working in cooperation with upland farmers	20						
a. Firm experience		6	2	0	5	0	3
b. Firm/NGO experience in dealing with government rules and regulations and procedures		4	3	4	4	2	4
c. Present key staff experience		5	4	3	5	1	4
d. Proposed key staff experience		5	5	5	4	2	4
Sub-Total	20	20	14	12	18	5	15
2. Technical feasibility and appropriateness of the Development/Management plan	20						
a. Development approach		10	8	9	8	5	7
b. Training		3	3	3	3	3	3
c. Infrastructure		3	3	3	3	2	2
d. Responsiveness to the Terms of Reference		4	4	4	4	2	3
Sub-Total	20	20	18	19	18	12	15

EVALUATION CRITERIA	POINTS	SUB-POINTS SCORE	TREB	CRPSS	MSBPI	TEACH	NPEPI
3. Qualification of the proposed Management Team	30						
a. Experience of key personnel		2	1	2	2	1	1
b. Working relationship		6	0	6	5	4	4
c. Delineation of responsibility/ organizational structure		8	8	6	3	4	5
d. Fitness of the Personnel		6	6	6	3	2	3
e. Availability/qualification of consultants		2	2	2	2	2	2
f. Ability to work with people		2	1	2	2	2	2
g. Availability/commitment		4	1	4	2	2	4
Sub-Total	30	30	22	28	19	17	21
4. Financial capability	20						
a. Working capital for 3 months		20					
Sub-Total	20	20	20	20	20	20	20
5. Experience in road construction work	10						
a. Firm/key staff experience		5	3	0	5	0	0
b. Labor intensiveness/usage of local materials		5	5	5	5	5	5
Sub-Total		10	8	5	10	5	5
TOTAL		100	82	84	75	59	76

* Simple lodging or pressing of cogon as weed control measure in site preparation and plantation maintenance operations.

* Community-based forest protection (e.g. community forestry patrols or rangers as formed in Murcia and Ayungon).

d. For future contract reforestation projects, phase in/phase out mechanism should be built in the project plan. The following issues/recommendations raised by Arenas (1990) in his final report on "Contract Reforestation Component of RRDP Cycle II Technical Assistance" are also reiterated hereunder:

In site selection, the area should be free from adversed claims/encumbrances, of good or manageable peace and order situation, preferably accessible, and labor is available from the site or nearby communities.

* The 80% survival rate should not be adopted on a national scale; must be lower in seasonally dry regions (especially climatic type 1).

The process of selecting corporate contractor must include financial capability especially in advancing payments for at least 3 months to cushion delays in payments/reimbursements. However, due to the considerable risk in contract reforestation business, the corporate contractor's margin for profit may have to be increased from 10% to about 25% to be competitive especially with money market.

* The principle of economy of scale should be considered in awarding contracts to corporate contractors. Determination of the minimum area to be awarded to ensure at least a 10% profit for the contractor is necessary.

C. SITE SPECIFIC CONTRACT REFORESTATION FOLLOW-ON PROPOSALS

1. Bamban Contract Reforestation Project

Immediate Plan (Oct. - Dec. 1991)

Maintenance and protection; financial support can be sourced through NFP fund.

a. Turn-Over Options

* Option A, (Turn-Over to DENR)

  o Take over by DENR for maintenance and protection (major and immediate concern); long-term rehabilitation work (optional) and should be based on research findings.

  o Other Activities:

  - DENR to work for the resolution of the land jurisdiction (i.e. from DND to DENR)

  - Monitor in-and out-migration of people to/from the project site.

* Option B (TREE to continue)

  o Conduct final assessment for immediate turn-over so that new MOA may be pursued.

  o TREE's Proposed Maintenance and Protection Project (Oct. - Dec. 1991)

  - Indicative financial plan (see Table 3.4); estimated total cost is ₱653,534

  - Major Components:

  o Maintenance (ring weeding, pressing road maintenance; building maintenance/ supervision)

  o Protection (fireline maintenance; roving guards; towermen, supervision)

  o Administration (Project Manager and Support Staff)

  o Operating Expenses (supplies, travel, sundries)

  o Overhead (5% of all items above)

  o Mark-up (10% of total)

2. Murcia (BACIWA) Contract Reforestation Project

a. Follow-on proposal -- "Three-Year Continuity Plan for the BACIWA Watershed Development Project" - prepared by NFEFI

TABLE 3.4 INDICATIVE FINANCIAL PLAN
BAMBAN REFORESTATION PROJECT (MAINTENANCE AND PROTECTION CONTRACT) October 1, 1991 to Decembe - Prepared by: T.R.E.E., Inc.

	ACTIVITIES	UNIT	UNIT COST	NUMBER OF UNITS	1 OCTOBER UNIT	1 OCTOBER COST	9 NOVEMBER UNIT	9 NOVEMBER COST	1 DECEMBER UNIT	1 DECEMBER COST	GRAND TOTAL UNIT	GRAND TOTAL COST	PERCENT (%) COST
A	MAINTENANCE					38,470		62,220		93,470		194,160	29.71
	1. Ringweeding	hectare	250	415	25	6,250	75	18,750	50	12,500	150	37,500	
	2. Pressing	hectare	750	415	10	7,500	25	18,750	75	56,250	110	82,500	
	3. Road Maintenance	month	15,450	3	1	15,450	1	15,450	1	15,450	3	46,350	
	4. Building Maintenance	month	2,520	3	1	2,520	1	2,520	1	2,520	3	7,560	
	5. Supervision	month	6,750	3	1	6,750	1	6,750	1	6,750	3	20,250	
B	PROTECTION					38,390		65,390		83,390		187,170	28.64
	1. Brushing of Firelines	hectare	1,800				15	27,000	25	45,000	40	72,000	
	2. Roving Guards	month	26,100	3	1	26,100	1	26,100	1	26,100	3	78,300	
	3. Towermen	month	5,040	3	1	5,040	1	5,040	1	5,040	3	15,120	
	4. Supervision	month	7,250	3	1	7,250	1	7,250	1	7,250	3	21,750	
C	ADMINISTRATION					39,000		39,000		39,000		117,000	17.90
	1. Project Manager	month	12,250	3	1	12,250	1	12,250	1	12,250	3	36,750	
	2. Administrative Assistant	month	7,500	3	1	7,500	1	7,500	1	7,500	3	22,500	
	3. Accountant	month	7,250	3	1	7,250	1	7,250	1	7,250	3	21,750	
	4. General Clerk	month	4,000	3	1	4,000	1	4,000	1	4,000	3	12,000	
	5. Driver/Mechanic	month	4,250	3	1	4,250	1	4,250	1	4,250	3	12,750	
	6. Utilityman	month	3,750	3	1	3,750	1	3,750	1	3,750	3	11,250	
D	OPERATING EXPENSES					22,500		22,500		22,500		67,500	10.33
	1. Vehicle Rental	month	4,500	3	1	4,500	1	4,500	1	4,500	3	13,500	
	2. Office Rental	month	1,500	3	1	1,500	1	1,500	1	1,500	3	4,500	
	3. Fuel, Oil & lubricants	month	7,500	3	1	7,500	1	7,500	1	7,500	3	22,500	
	4. Office Supplies	month	1,000	3	1	1,000	1	1,000	1	1,000	3	3,000	
	5. Medical supplies	month	1,000	3	1	1,000	1	1,000	1	1,000	3	3,000	
	6. Transportation Expenses	month	1,000	3	1	1,000	1	1,000	1	1,000	3	3,000	
	7. Equipment Maintenance	month	6,000	3	1	6,000	1	6,000	1	6,000	3	18,000	
E	OVERHEAD (5% of items A to D)					6,918		9,456		11,918		28,292	4.33
F	TOTAL					145,278		198,566		250,278		594,122	
G	MARK-UP (10% of item F)					14,528		19,857		25,028		59,412	9.09
H	GRAND TOTAL					159,806		218,422		275,306		653,534	100.00

b. Major features of the proposal:

* it is com-based implementation; NFEFI to continue to provide technical and management assistance. Plan is to strengthen the present cooperative so that it may be able to continue what NFEFI started.

* Participatory planning approach - based on needs assessment and discussions with the participants.

* Component activities:

  o Forest and plantation protection and maintenance

  - Patrolling
  - Ring weeding (conv. refo.)
  - Underbrushing (ANR)
  - Infra. maintenance (trails, look-out tower)

  o Coop strengthening
  o Farming input assistance (130 pax @ P5000)
  o Potable water and irrigation systems
  o Communal refo; (30 has) underbrushing
  o Staff house improvement
  o Livestock production
  o Project admin

* Budgetary requirement - ₱3.72 M (3 years). Funding can be sourced under NFP fund (contract refo or watershed rehab. compo.)

3. Calawis-Antipolo Integrated Agroforestry and Reforestation Project

a. Turn-Over Options:

* Option A (turn over to DENR)

  o Continue maintenance and protection especially these dry months (Oct. - May). Funding should be provided immediately; funding through NFP funds.

  o Follow-on assistance to the community should be extended through the ISFP. Follow-on assistance include: formation of association/cooperative and credit assistance as well as techno transfer on pest management and agroforestry technology.

* Option B (MSBFI to continue)

  o Adopt MSBFI proposal that their contract be continued for 3 months so that they can extend necessary assistance in the formation of farmer association and in affiliating it with existing coop.

- Later to be under FLMA

- Estimated cost = ₱240,000 (3 months; from Oct. - Dec. 1991)

Supervision	-	₱ 9,000/mo
Labor (18 laborers)	-	45,000/mo
Farmer expenses + contingency	-	26,000/mo
		₱80,000/mo

- Comment on the proposal: Three months is not enough for CO and institutional strengthening. Propose at least a year for MSBFI to assist in CO/CD activities.

Note: For the other 2 contract reforestation projects namely, Porac Refo Project and Ayungon Refo Project, no specific follow-on activity is proposed.

CHAPTER 4

PRODUCTION NURSERIES, CLONAL ORCHARDS, AND SPECIES TRIAL PROJECT

PRODUCTION NURSERIES, CLONAL ORCHARDS AND SPECIES TRIAL PROJECT

A. HIGHLIGHTS AND SUMMARY

This assessment work aimed to document the gains, experiences and lessons learned from the implementation of the project, generate proposals or follow-on activities to sustain the gains and develop a framework of a program based on the above gains, experiences and lessons. Through evaluation of project documents, surveys, site visits, interviews, and workshops, the following findings were obtained:

1. For all project sites, the accomplishments of all the targets reached over 100% completion except for one site (Region 3) which was damaged by Mt. Pinatubo eruption.

2. The sustainability of most project sites was generally good. However, three sites (Regions 3, 6 and 7) may need establishment of extension sites since their sustainability for seed/clonal orchard was rated poor.

3. A major gain/lesson from the project is the development and implementation of a national system of coordination and the establishment, operation and management of a clonal orchard, species trial and seedling production.

4. Other lessons learned involved site selection, project staff selection and coordination with DENR project implementors and with private individuals.

5. New information were learned concerning seed collection and nursery techniques for indigenous forest species. As a result, a nursery manual is being prepared by the project management.

With regard to the recommended immediate follow-on activities, covering October to December 1991, the two options include: a) the turn over to DENRO with supporting funds from other DENR programs through the NPCO, and b) extend the services of the UPLBFI. For the latter option, the term of reference must include the intermediate follow-on activities which cover the conduct of:

- researches such as selection of plus trees, provenancial trials, phenology and seed technology for forest species;
- training on tree selection, seed collection and handling, seed/clonal orchard establishment, and nursery management;
- development of interim planting material certification mechanism; and
- information dissemination to encourage the private entrepreneurs to engage in seed/clonal orchard and nursery enterprises.

For the long term program (beyond 5 years), the establishment of the Integrated Planting Material Improvement and Certification Program (IPMIC) is proposed. A conceptual framework and indicative budget for this is included.

B. INTRODUCTION

This Technical Assistance project was conducted by OIDCI starting 21 August 1991 until September 30, 1991. This is part of the project, "Identification and Preparation of Follow-on Activities for the Rainfed Resources Development Project", which includes specific component project such as Agroforestry and Contract Reforestation, in addition to this project; Regional Production Nurseries, Clonal Orchards and Species Trial Projects (Clonal Project). This was contracted with USAID. The services of Horticulturist/Plant Breeder, and Contract Reforestation Specialist were tapped to evaluate the "Clonal Project". They were assisted by Agroforestry Specialist, Program specialist, Institutional Development Specialist, and Infrastructure Specialist.

Objectives

This component of the TA project aims specifically to:

1. Document the gains and experiences achieved and lessons learned from the implementation of the RRDP project "Regional Production Nurseries, Clonal Orchards, and Species Trial".

2. Generate project proposals or follow-on activities to sustain the gains and expand or replicate the same in other regions or sites.

3. Develop a conceptual and operational framework of a program for a DENR-based network of planting material production and certification system.

Methodology

Project documents especially those made after June 1990 were reviewed and evaluated. The consultants also participated in the workshop conducted by the Project Management covering the presentation of individual site terminal report and the preparation of comprehensive final report. This was conducted last August, 1991.

A survey/interview was conducted with all the site managers. A personal interview was also conducted with the project manager, the Director of contracting agency (UPLBFI), some project consultants and selected site managers.

Field evaluation of selected sites was also conducted together with the consultancy team.

Three regional workshops (Luzon, Visayas, Mindanao) were held to gather the views of DENR regional officials as well as those of project implementors. A national technical workshop was also conducted to present the overall findings of the assessment works. This national technical workshop also served to fine-tune the final report and proposal which were subsequently presented in a national workshop attended by key personnel of DENR and representatives of some funding agencies.

C. GENERAL PROJECT PROFILE

The project, "Production Nurseries, Clonal Orchards, and Species Trial Project", was contracted with the UPLB Foundation, Inc. (UPLBFI). It started in November 1988 and was completed in September 1991. It has a total budget of ₱7,646,572 over three years, with a GOP (DENR) counterpart of 13% and USAID commitment of 87%.

The project is administered at UP Los Baños. It has seven project sites in seven regions which include:

1.	Cordillera-Autonomous Region	Busol Watershed Baguio City, Benguet
2.	Region 3	Patling, Capas, Tarlac, Pasbul, Porac, Pampanga
3.	Region 5	Napolidan, Lupi Camarines Sur
4.	Region 6	Tiolas, San Joaquin Iloilo
5.	Region 7	Carmen, Juanay, Manipis, and Talisay, Cebu
6.	Region 8	Busay and Nagaasan, Babatngon, Leyte
7.	Region 10	Impalutao, Impasug-ong, Bukidnon

The components of the project which were established in each of the sites were as follows:

1. Production Nursery - This aims to produce seedlings of fruit and forest tree species for distribution to DENR regional projects like reforestation, ISFP, etc.

2. Clonal Orchard - This aims to establish an orchard of selected cultivars of fruit crops which will be used as source of scions for DENR projects.

3. Species Trial - This aims to set up a field performance trial of forestry and fruit tree species particularly indigenous species to determine their adaptability to local conditions. This also include the continuation of the monitoring and maintenance of the species trial established by the HODAM Inc.

Additional general information about the project is presented in Annex 4.1.

D. PROJECT ASSESSMENT

1. Accomplishments

Table 1 shows the summary of accomplishments of the project for all sites as of September 15, 1991. It can be noted that for the three components of the project there are over 100% completion or accomplishment of the set target; the exception is the clonal orchard of Region 3 at Capas, Tarlac which has only 83.25% rating for accomplishment because it was affected by Mt. Pinatubo eruption. Despite this, the project can be rated as a complete success.

The individual profile of all the project sites are presented on the attached annexes (4.2 to 4.8).

2. Sustainability of the Project

Table 2 shows the rating of all project sites in terms of various criteria which are indicative of their sustainability. It can be noted that for the production nursery component in Regions 7 and 10 there are some legal or local constraints in the arrangements with the site. Some claimants to the sites exist, so they are rated as P (poor). The rest are all rated G (good) in terms of local/legal arrangements.

In terms of the required structures (nursery, tools, etc.) and the accessibility of the production nurseries, all sites were rated G (good). For site suitability, Regions 3, 6, and 7 sites have more P ratings especially in terms of soil properties and exposure to extreme climatic conditions (drought, strong winds, etc.).

With regards to the clonal orchards, the suitability of the sites in Regions 3, 6, and 7 were again rated P's. The same holds true for the sites in species trial.

The above indicates that there will be a need to reestablish extension sites in these three regions (Regions 3, 6, and 7) especially for the clonal orchards. This is to enable the maximum growth and development of the selected clones; otherwise they may not be able to produce the expected quantity of clones and planting materials for distribution to the DENR agroforestry projects.

For the other regions (Regions CAR, 5, 8, and 10), it is expected that given appropriate orchard management, they should be able to generate the expected clones/planting materials for the agroforest projects in the region.

Table 1. SUMMARY OF ACCOMPLISHMENTS (November 1988 - September 1991)

PROJECT COMPONENTS	Regional Sites	Target (seedlings)	ACCOMPLISHMENTS	
			Number	%
A. Production Nursery				
1. Seedlings for DENR	all sites	817,030	868,103	106
2. Seedlings for Species Trial	all sites	32,667	40,394	124
3. Seedlings for Clonal Orchards	all sites	2,800	3,270	117

B. Clonal orchard		Species/ Cultivars (SC)	Clones (C)	SC	C	% SC	% C
	CAR	10	400	19	400	190	100.0
	3	10	400	28	333*	280	83.25*
	5	10	400	41	400	410	102.5
	6	10	400	32	403	320	100.75
	7	10	400	24	402	240	100.5
	8	10	400	31	413	310	103.25
	10	10	400	35	415	350	103.75

C. Species Trial		Number of Species/ Provenance	Number	%
1. Newly established trials				
	CAR	16	20	125
	3	30	34	113.3
	5	30	34	113.3
	6	30	34	113.3
	7	30	34	113.3
	8	30	32	120.7
	10	30	34	113.33
2. Old (Hodam) trials	3	8	8	100.0
	8	11	11	100.0

* Damaged by Mt. Pinatubo eruption.

Table 2. SUSTAINABILITY RATING OF ALL PROJECT SITES

COMPONENT/CRITERIA	REGIONAL SITES						
	CAR	3	5	6	7	8	10
PRODUCTION NURSERY							
1. Local/legal arrangements cleared	G	G	G	G	P	VG	P
2. Structures in place	G	G	G	G	G	G	G
3. Accessibility	G	G	G	G	G	G	G
4. Suitability							
- water availability	VG	G	G	G	G	G	G
- topography	G	VG	G	G	P	G	P
- climate/wind	P	P	G	P	P	G	G
- soil	G	P	G	P	VP	P	G
CLONAL ORCHARD							
1. Local/legal arrangements cleared	G	G	G	G	G	G	G
2. Accessibility	G	G	G	P	P	P	P
3. Suitability							
- water availability	G	P	VG	P	VP	G	VG
- topography/slope	G	P	VG	P	P	G	VG
- climate/wind	P	P	G	P	P	G	G
- soil	G	P	G	P	VP	P	G
- site cover	P	P	G	P	P	P	P
SPECIES TRIAL							
1. Local/legal arrangements cleared	G	G	G	G	G	G	G
2. Accessibility	G	G	G	P	P	P	P
3. Suitability							
- water availability	G	P	G	P	VP	G	VG
- topography	G	P	G	P	P	G	VG
- climate/wind	P	P	G	P	P	G	G
- soil	G	P	G	P	VP	P	G

VG - Very Good
G - Good
P - Poor
VP - Very Poor

3. Urgent Field Activities (October 1991 - December 1991)

In order to guarantee the continued growth and development of the trees in the clonal orchards and species trial, the following must be done/provided within the period of October to December 1991.

Major Activities	Project Components	
	Clonal Orchard (1 ha)	Species Trial (4-5 ha)
a) Monitoring and Protection		
1) Weeding/brushing	x	x
2) Irrigation/watering	x	
3) Pruning	x	
4) Shading/Mulching	x	
5) Pest and disease control	x	x
6) Nurse crops/cover crops est. & maintenance	x	
7) Firebreak maintenance	x	x
8) Shelterbelt est. & maintenance	x	
9) Patrol works	x	x
b) Monitoring and Assessment of Performance		
1) Survival and growth		x
2) Other relevant information (technical & management)	x	x

Resource Requirements (CO + ST)

Manpower: Supervision: Forester/Horticulturist
Labor : 4-6 laborers

Materials and supplies - limited

Equipment/tools - limited

4. Lessons Learned

a) The project enabled the development and implementation of a national system of coordination in the establishment, operation and management of clonal orchard, species trial, and seedling production.

b) During the pre-implementation period, some lessons were learned concerning the following:

- Site selection: The formal confirmation of some project sites was delayed due to some legal or management constraints; it is recommended that public lands with no adverse claims should be selected.

  Some sites were also situated in unsuitable and inaccessible areas. It is recommended that sites should be located at most 5 kms. from the nearest passable (vehicle) roads. For clonal orchards, they should be located near or central to the DENR projects, having adequate water supply, good soil conditions and drainage, and gentle topography.

- Project Staff Selection: In as much as the project involves research and development (R & D) works, the staff to be employed should be technically prepared in R & D, and should have experienced with project implementation.

c) During the implementation period, the following lessons were noted:

- It is possible to set up production nursery in private individuals' lands provided that the terms of coordination and cooperation are clearly documented.

- Close coordination with DENR project implementors to synchronize seedling production with the schedule of planting. There were occasions in the implementation of the program when seedlings are available but the DENR do not have scheduled planting, so the seedlings overgrew in the nursery.

- As the species trial was prepared, the problem of the collection of seeds from indigenous species was noted. Very limited information was available on the possible sources of seeds, when will they be available and other phenological information such as maturity indices and harvesting techniques.

- For some trees especially the indigenous ones, new nursery techniques were developed; these information were included in a nursery manual prepared by the staff and consultants of the projects.

- Other lessons were also noted based on the apparent limitations of the project that were not considered in the project conceptualization stage. These include the following:

  - The project could have also started a long term tree improvement program which is a major gap in the national forestry research and development. In addition to its focus on establishment of clonal orchard and species trial, it could have given some emphasis also on provenance trial and in identification and selection of plus trees among existing reforestation area, seed production areas, natural plantations and in farmers' fields.

  - While the project have successfully established clonal orchards, for fruits and plantation crops, it did not paved way for the initiation of the establishment of clonal/seed orchard for forest species.

E. PROJECT PROPOSALS

1. October to December 1991 (Immediate)

a) Turn-over to DENRRO (specifically to ERDS) with supporting funds to be sourced from other DENR programs through NPCO. An indicative budget for this is presented in Table 3A.

b) If funds can be obtained, extend the services of the present contractor (UPLBFI) and include in their terms of reference some of the intermediate follow-on activities (B) as indicated below; an indicative requirement for the maintenance, protection and monitoring of the 7 project sites is presented in Table 3B.

c) Mobilize DENR staff who were trained to take over the activities of the clonal project. The team recommends the absorption of existing staff of the project who already have field experience into the DENR operations.

d) Promote within DENR the idea of an integrated forestry/planting material improvement and certification program.

2. Two-to-Five-Year Plan (Intermediate)

a) Lay the ground work for the establishment of an integrated planting material improvement and certification program under DENR.

- o Initiate provenance trials among forest species which already undergone relatively more extensive species trial. This includes mahogany, gmelina, narra, A. mangium and A. auriculiformis, among others.

- o Start selection and identification works of plus trees on a regional scale in existing plantations.

- o Establish an interim certification mechanism for widely used forest species. This include creation of an ad-hoc committee to prepare the guidelines and procedure for certification.

b) Conduct of research on phenology of forest species (especially the indigenous species) which includes flowering and fruiting behavior, and maturity and harvesting indices.

c) Conduct of research on seed storage and/or post harvest handling.

d) Conduct of training on tree selection, seed collection and handling.

e) Opening up of the opportunities for the private sector to engage in seed/clonal orchard and nursery enterprise.

f) Training on seed/clonal orchard establishment and nursery operation and management.

3. Long Term (Beyond 5 years)

Establishment of the Integrated Planting Material Improvement and Certification Program.

A concept paper for this is presented in the following section.

Table 3. Indicative Budgetary Requirements of the Two Options for the Follow-on Activities for the Seven Sites of Clonal Orchards and Species Trial

A. Turn-over to DENR Management

ITEMS	BUDGET (₱,000)				
	Oct-Dec 1991	1992	1993	1994-96	TOTAL
1. Personnel					
Field Operation	291	1,164	1,164	3,840	6,459
2. MOE	105	420	420	1,386	2,331
3. Contingency (10%)	40	158	158	523	879
TOTAL	436	1,742	1,742	5,749	9,669

B. Continue the services of UPLBFI in existing seven (7) sites and provide funds for intermediate follow-on activities

ITEMS	BUDGET (₱,000)				
	Oct-Dec 1991	1992	1993	1994-96	TOTAL
1. Personnel					
Field Operation	291	1,164	1,164	3,840	6,459
Proj. Management (Coordination)	80	404	404	1,320	2,208
Subtotal	371	1,568	1,568	5,160	8,667
2. MOE					
Field Operation					
- Clonal	105	420	420	1,386	2,331
- Research	-	700	1,400	4,200	6,300
- Training	-	700	700	2,100	3,500
Proj. Management (Coordination)	78	512	512	1,600	2,702
Subtotal	183	2,332	3,032	9,286	14,833
3. Contingency (10%)	55	390	460	1,445	2,350
TOTAL	609	4,290	5,060	15,891	25,850

PROPOSED INTEGRATED PLANTING MATERIAL IMPROVEMENT, AND CERTIFICATION PROGRAM

1. Background/Rationale

The Department of Environment and Natural Resources (DENR) has been implementing forestation, reforestation and agroforestry programs in hundreds of thousand hectares all over the country. Millions of planting materials are being used, yet no one can guarantee their quality and adaptability to the project area. No one can also ascertain the susceptibility or tolerance of these planting materials to existing or potential pest and diseases. As such, the whole country is facing uncertainty as to the outcome of most (if not all) programs involving the used of unselected and uncertified planting materials.

Unlike in other countries (e.g. USA) where tree breeding/ improvement programs are already on advanced stages, the genetic manipulation to improve the quality of planting materials in forestry has not been given much attention in our country. As such, certification mechanism is also not installed.

Of course there were serious attempts in the past to pursue such programs but unfortunately they were not sustained. Two good examples are the following: a) the UPLB - BFD/MNR Tree Improvement Program in the early 1980's where the clonal orchards established were not maintained and protected after project termination and so these orchards are already not existing anymore; and b) the creation of the National Forest Tree Seed Research and Certification Office (NAFTSERCO) in 1984 but was not supported in 1986 causing its termination.

More recently (for the past 3 to 4 years), the DENR has been implementing parallel projects geared towards the production and distribution of superior quality planting materials. These include the following: a) UPLB-implemented RRDP/DENR - supported Production Nursery, Clonal Orchard and Species Trials Project - This project was established in 7 regional sites. It started in November 1988 and will terminate on September 1991. The Clonal Orchard component consists of establishment of selected superior clones/varieties of several fruit tree species in the orchards intended mainly as a source of scions or seeds for the RRDP agroforestry projects and other similar projects of DENR. The Species Trials component consists of testing the site adaptability of at least 25 forest tree species and 5 fruit tree species per region with emphasis on indigenous species. In addition, about 6-year old species trials plantations mainly of exotic species established by Hodams and Associates in 2 regional sites have also been turned over to UPLBFI for continuous maintenance and growth measurements. Such species trials are intended as support for the NFP of DENR. b) ERDB-coordinated, ERDS-implemented project entitled "Establishment of Seed Production Areas" under the NFP R & D Reforestation Program of DENR - This project is being established in 8 regions. It

consists mainly of establishing seed production areas from existing natural stands and plantations with the ultimate goal of establishing seed/clonal orchards, and c) Regional Seed TAsk Force - coordinated project on establishment of 10 has. seed production area for each of the 13 DENR regions.

To ensure the sustained implementation of such projects once they are terminated, and so that full attainment of their set objectives can be realized, appropriate phase-in/phase-out or follow-on activities and plans should be pursued.

One strategy to achieve this is the establishment of a Planting Material Improvement, Production and Certification Program to be based at DENR. As conceived herein, this program shall integrate all related DENR projects dealing with production and dissemination of high quality planting materials especially in support of its flagship programs. The major advantage that can be derived from such integration is premised on the high likelihood that there will be more effective coordination of activities and resources between and among related projects thereby redounding to the over-all sustainable implementation of all project components.

Ultimately, the planting materials that will be disseminated to DENR and other projects will be guaranteed certified and selected from superior mother trees, and reliable nurseries.

2. Objectives

The general objective of the project is to produce high quality planting materials for the DENR projects. Specifically, the project aims to:

a) Integrate all related DENR projects dealing with the development, production, and dissemination of high quality planting materials;

b) Institutionalize a mechanism of certification of quality planting materials for distribution;

c) Develop a comprehensive system of development, production, certification and dissemination of quality planting materials; and

d) Establish regional clonal orchards and nursery.

3. Target Areas/Beneficiaries

The project will use the existing clonal orchards and species trial established under the UPLBFI-DENR-RRDP projects in seven (7) regions. The remaining regions will have to establish with the same project. The ultimate beneficiaries of this will be the following programs of the DENR:

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- o ADB-OECF
- o NFP
- o SECAL-WB-ENR
- o NRMP
- o ISFP
- o CFP
- o IPAS
- o Other DENR Projects

4. Operational Framework

a) Operation Flow

Figure 4.1 shows the system of operation of the Integrated Planting Material Improvement and Certification (IPMIC). The whole process starts with identification, selection and sourcing of outstanding plant materials from local or foreign sources. Plant materials from foreign sources go through the quarantine system of the Bureau of Plant Industry. Local sources can be the selected tree in existing seed production areas, and natural forest and plantations.

After the identification and sourcing stage, the planting materials undergo testing for viability (for seeds) and storage if they have to be distributed at a later date. They will also be certified using criteria which will be set by a technical committee. For planting materials which are asexually propagated certification will also be done using a set of criteria.

The certification of the planting materials from selected trees in existing seed production areas or natural forests and plantations will be an interim activity pending results of more advanced species trials, provenance trials and progeny testing. These are components of plant improvement program where planting materials will be selected based on their genetic superiority. These genetically superior materials will then be certified and planted in clonal or seed orchard which will be the ultimate source of seeds and clones for distribution to farmers. Establishment of Seed and Clonal orchards will also be authorized/certified by the certification unit. Only reliable and technically trained individuals will be allowed to establish and operate seed and clonal orchards.

From the seed and clonal orchards, planting materials (seeds) will be obtained and distributed to farmers or DENR project implementors by certified/authorized distributors. If the planting materials are clones or seedlings, they will have to be raised/mass propagated in certified/authorized nurseries. These can be owned and managed by private individuals or by DENR regional or provincial officials.

b) Forest Seed Committee/Board Operation and Certification Procedures

Any institution, individuals or group who is engaged in tree breeding or selection may apply for seed certification or approval of his selected, developed or discovered species or varieties. The Technical Committee shall screen/evaluate the entries and shall make sure that all the necessary technical criteria were considered in the process of breeding, selection and evaluation/testing. The details of the technical criteria and guidelines shall be determined by the Technical Committee.

After passing through the screening and evaluation process conducted by the Technical Committee, the entry will then be endorsed to the Forest Seed Committee which will give the final approval/certification. Upon approval by the Seed Committee, the species, variety or provenance can then be mass produced by certified agencies in seed or clonal orchard or in designated seed production areas. The certification of seed/clonal orchards shall also be governed by certain criteria/guidelines to be determined by the Technical Committee and approved by the Seed Committee.

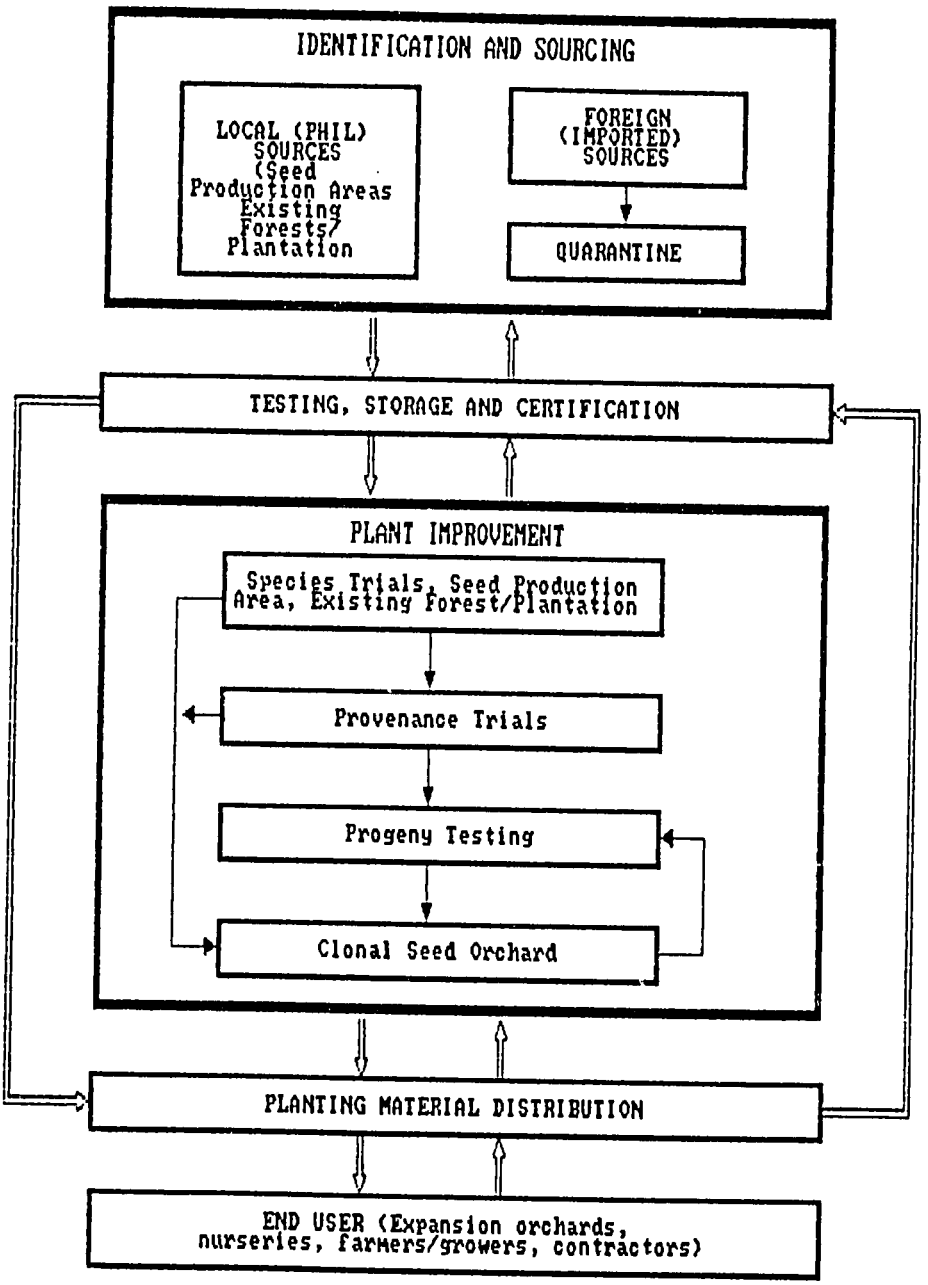
When seed, scions or cuttings are already available in the seed/clonal orchards, they can be reproduced or multiplied for dissemination in DENR production nurseries or in certified private nurseries. The guidelines and procedures in certifying nurseries, which will disseminate and distribute planting materials, will also be determined by the Technical Committee and approved by the Seed Board.

The Forest Seed Committee will eventually constitute the Forest Seed Board, which will ultimately be the official approving and certifying unit for planting materials of forest species.

c) Organizational Arrangements

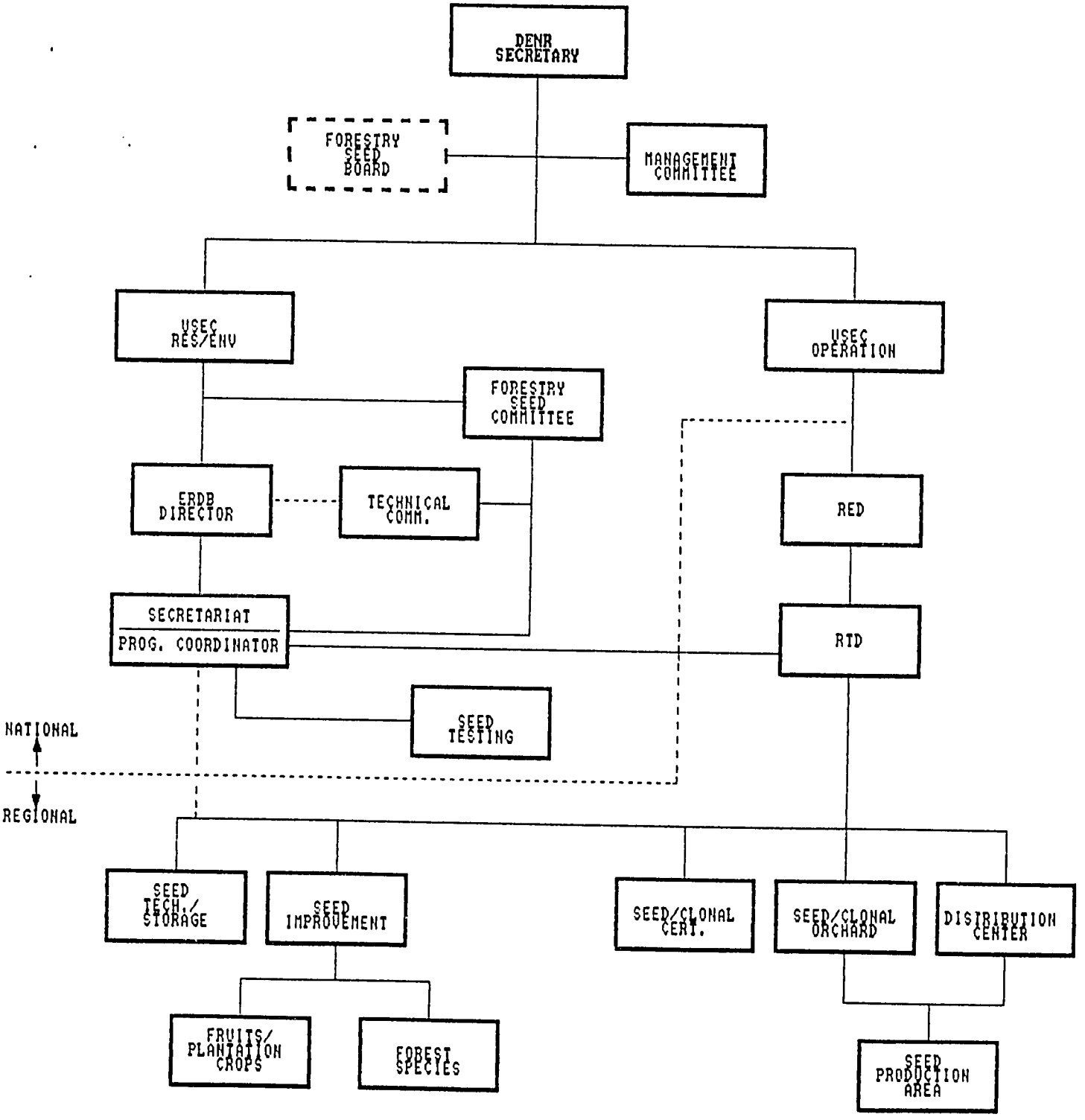
This program attempts to fit in the existing operations and units of DENR and other concerned agencies to minimize duplication of activities and efforts, and to efficiently utilize limited financial resources. This will also try to integrate and unify related activities/projects by various agencies to achieve its objectives. Thus, the program will align itself in the existing research and development program/agencies of DENR. Furthermore, existing academic, and R and D institutions who have strengths in other components of the program will also be involved. Table 1 indicates the various institutions to be involved in the specific follow-on activities and in the long term program for tree improvement and certification. Figure 4.2 shows the organizational structure that will implement the program.

Figure 4.1
IPMIC SYSTEM OF OPERATION



FN-IPMIC.CHT

Figure 4.2
ORGANIZATIONAL STRUCTURE



For the certification of fruits or/and plantation crops, the existing system being implemented by the Department of Agriculture shall be followed.

Table 1. Institutional Support Activities

	ACTIVITIES	INSTITUTIONS
1.	Groundworking for establishment of integrated planting material improvement and certification program	
	a. selection and identification of selected trees and pro-	ERDB, ERDS, Academe
	b. provenance trial	ERDB, ERDS, Academe
	c. establishment of interim certification mechanism	ERDB, UPLB
	d. interim certification office	USEC Res. & Env.
2.	Training on seed collection and handling	UPLB
3.	Research on Phenologies and Seed Technology	UPLB, ERDB
4.	Information Dissemination re: clonal orchard and nursery enterprises	DENR regional office
5.	Integrated Planting Material Improvement and Certification Program (IPMIC)	
	a) Program coordination	ERDB
	b) Research	
	1. Seed technology	ERDB, Academe
	2. Tree improvement	ERDB, Academe, ERDS
	3. Certification & monitoring	ERDS
	4. Seed clonal orchard	Reg'l/Prov'l off., private sector
	5. Seed storage/distribution and production nursery	Reg'l/Prov'l off., private sector
6.	Forestry seed board	DENR Secretary

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d) Program Component Activities

1) Testing, Storage and Certification

- o Establishment of National and Regional Seed Testing and storage facilities
- o Establishment of seed/planting materials certification mechanism
  - creation of an interim Forest Seed Committee which will form the future Forestry Seed Board
  - creation of a technical committee to prepare the guidelines for the operation of the Forest Seed Committee/Board, and the guidelines for certification.

2) Research

- o Tree phenologies and Seed technology
- o Tree Improvement
  - species, provenance and progeny trials on the regional level
  - identification and selection of plus trees

3) Establishment and maintenance of regional clonal/seed orchard in all regions including NCR.

4) Training

- o On the selection and seed collection and handling
- o Seed/Clonal orchard establishment and nursery operation and management

5) Mass propagation and distribution of planting materials with the involvement of private sectors engaged in nursery enterprises.

5. Indicative Budget for Five Years

		₱ in Million	
a)	Clonal Orchard/Species Trial		31.8
	- Establishment in 8 new regions (₱1.4 M/site/3years x 8 regions)	12.0	
	- Reestablishment of 3 extension sites from old unsuitable sites (1.5 M/site)	4.5	
	- Maintenance (₱300,000/yr x 8 regions x 2 years)	4.8	
	- Maintenance (₱300,000/yr x 7 existing sites x 5)	10.5	
b)	Research		166.5
	- Personnel and MOE (₱6.6M/sites x 15 sites)	99.0	
	- Infra/Facilities (₱3.0 M/site x 15)	45.0	
	- Transportation (₱1.5 M/site x 15)	22.5	
c)	Forest Seed Committee/Board ₱1 M		1.0
d)	Technical Assistance (including Training) (30%)		57.9
e)	National Coordination (10%)		26.0
	TOTAL		₱ 283.2 M
			$ 10.5 M

ANNEXES

Annex 4.1

REGIONAL PRODUCTION NURSERIES, CLONAL ORCHARDS AND SPECIES TRIAL PROJECT

1.	IMPLEMENTING AGENCY	:	Department of Environment and Natural Resrouces (DENR)
2.	CONTRACTOR	:	UPLB Foundation, Inc. (UPLBFI)
3.	DATE STARTED	:	November 1988
4.	COMPLETION DATE	:	September, 1991

5. CONTACT PERSONS AND ADDRESSES

a) Contractor

1. Dr. Ruben B. Aspiras, President
2. Dr. Corazon T. Aragon, Executive Director
   UPLB Foundation, Inc. College, Laguna

b) Project Management Office

1. Forester Jose O. Sargento, Project Manager/Forester
2. Ms. Imelda C. Lobo, Administrative Officer
3. Forester Rowena P. Sto. Tomas, Project Research Asst.
4. Dr. Roberto V. Dalmacio, Consultant
5. Dr. Domingo E. Angeles, Consultant
6. Prof. Nestor R. Lawas, Consultant
7. Prof. Rodel D. Lasco, Consultant
8. Ms. Encarnacion B. Jaen, Consultant

c) Site Resident Managers

CAR - Mr. Noel Miciano, Agriculturist/Horticulturist
Region 3 - Forester Melvin Bustillo, Professional Forester
Region 5 - Mr. Henry Jacob, Agriculturist
Region 6 - Forester Albert Perez, Professional Forester
Region 7 - Forester Nelson Sanchez, Professional Forester
Region 8 - Mr. Artemio Baong, Forester
Region 10 - Mr. Jimenez Malaton, Forester

d) Project Regional Coordinators (RC) and Contract Supervisors (CS)

CAR RC - Dr. Vicente Veracion, RTD for Research
CS - Forester Abe Tomas, CENRO Baguio City

Region 3 RC - RTD Delfin Ganapin, Sr., FMS
CS - Forester Abe Bacallo, CENRO Capas

Region 5 RC - RTD Remigio Atabay, Research
CS - Forester William Palaypayon, ERDS

Region 6 RC - Dr. Emil Rosario, RTD for Research
CS - Forester Arvi Fernando, CENRO Iloilo

Region 7 RC - RTD Elvero Eusebio, Research
CS - Forester Rogelio Baggayan, Jr., ERDS

Region 8 RC - RTD Bernardo Jasmin, Research
CS - Forester Urbano Roydora, ERDS

Region 10 RC - RTD Pepito Garcia, Research
CS - Forester Constante Serna, ERDS

6. PROJECT STAFF STRENGTH

a) Project Management Office

1) Project Manager - Professional Forester
BSF 1971, UP
MSF 1978 (Silviculture), New Zealand
Ph.D., UPLB, ongoing

2) Administrative Officer - B.S. Commerce
(Mgt. Accounting major)
Computer applications

3) Project Research Assistant - Professional Forester
BSF 1988, UPLB
Computer Applications

4) Technical Consultants (4) - a) PhD in Silviculture
b) PhD in Horticulture
c) PhD candidate in Silviculture/Agro-forestry
d) PhD candidate in Agronomy/Soil Science

5) Financial Management Consultant - Certified Public Accountant

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b) Site Resident Managers

1)	Professional Foresters	-	3 (Region 3, 6, 7)
2)	Foresters (not yet licensed)	-	2 (Region 8, 10)
3)	Agriculturists	-	2 (CAR, Region 5)

7. OTHER INFORMATION

a) Training Profile

1) Title of Training - Establishment and Management of Clonal Orchards and Species Trials

2) Participants - DENR Staff (23)
   o 2 CPS/RRDP/FASPO staff
   o 3 staff per Region (21)

3) Training Materials provided to participants and to DENR CPS/RRDP/FASPO

b) Institutional Linkages outside DENR

1) Institute of Plant Breeding (IPB) and Department of Horticulture

2) Department of Agriculture's (DA) BPI and Experiment Stations in Manila and Regions

3) Accredited Private Nurseries

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Annex 4.2

INDIVIDUAL SITE PROFILE

1. *Region* : Cordillera Administrative Region

2. *Location* : Busol Watershed Area, Bayan Park, Aurora Hill, Baguio

3. *Site Description*:

   a) Topography: 50 to 90% scope
   b) Total area of site: 2.5 ha.
   c) Distance from road: 1 km.
   d) Distance from nearest community: 0.5 km.
   e) Distance from town/sources of inputs: 10 km.

4. *Project Resources*

   a) Transport Vehicle - none
   b) Infrastructure

      - Nursery field office
      - Nursery shed

   c) Water supply

      Installed water system from Baguio Water District Reservoir using P.V.C. pipes and check valves, water encatchment were established for impounding water.

   d) Personnel

      - Site Resident Manager (1)
      - Skilled Laborer (1)
      - Contractual Laborer (3)

   e) Tools and Equipment

      - knapsack sprayer (1)
      - wheel barrow (2)
      - rake (1)
      - 3-prong hoc (1)
      - spade (1)
      - shovel (1)
      - trowel (2)
      - "sangkap" (2)
      - sprinkler (3)
      - pulsating sprinkler (1)

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5. *Fruit tree planted in the clonal orchard*

	Crops	Variety/Cultivation	Qty	Method of Propagation
a.	Major Crops			
	1. Coffee	Arabica-BPI Solution	100	seedlings
	2. Orange	Washington Navel	50	budded
		Crillete Navel	20	budded
		Altwood Navel	30	budded
		Hamlin	40	budded
b)	Minor Crops			
	1) Apple	Ana	10	grafted
		Pome Beauty	4	grafted
		Mara	1	grafted
	2) Pears	Nash pati	5	grafted
		Taiwan Hybrid	2	grafted
		Capri	1	grafted
	3) Lychee	Mauritius	20	marcoted
	4) Grapefuit	Pomelo Shambar	10	budded
		Pomelo Mars	10	budded
	5) Lemon	Meyer	40	budded
	6) Lime	Tahiti	15	budded
		Bears	15	budded
	7) Mandarin	Unshin	15	budded
		Satsuma	15	budded

6. *Forest species planted in the Species Trial*

Species	Total No. of Trees Planted
1. Almaciga	126
2. Narra	126
3. Kupang	126
4. Kalantas	126
5. Phil. Maple	126
6. Akle	126
7. Ipil	126
8. Manaring/Oak	126
9. Achoan-dilau	126
10. Tanglin	126
11. Agoho	126
12. Amugis	126
13. Spanish Cedar	126

Annex 4.3

INDIVIDUAL SITE PROFILE

1. *Region* : 3

2. *Location* : Barangay Patling, Capas, Tarlac

3. *Site Description*:

   a. Topography : 5-150 m. asl./sloping upward
   b. Total Area of Site : 10.80 has.
   c. Distance from road : 12.5
   d. Distance from nearest community: 1.0 km; Barangay Bueno
   e. Distance from town : 18 km from town proper

4. *Project Resources*

   a. Transport vehicle - none

   b. Infrastructures

      Building (office space) nursery, work area and storage room.

   c. Water supply

      - water pump (jetmatic)

   d. Personnel

      - Site Resident Manager (1)
      - Skilled Laborer (1)
      - Contractual (3)
      - Skilled laborer for Hodam plantation (2)

   e. Tools and equipment

      Sprayer, water hose, shovel, hoe, pick mattock, wheelbarrow, light typewriter, calculator, tape measure, bolos, sharpening stone and panabas, raincoat

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5. *Fruit tree planted in the clonal orchard*

	Crops	Variety	Source	Total seedlings Planted
a)	Major Crops			
1.	Mango	Pico	UPLB-IPB	80
		Carabao	- do -	80
2.	Guyabano	Sweet; Sour;	- do -	95
		Davao; Guevara	- do -	95
3.	Cashew	Dayab; Fareñas	- do -	52
	Subtotal			402
b)	Minor Crops			
1.	Atis	Yellow	- do -	30
2.	Chico	Gonzales;		
		Panderosa	- do -	32
3.	Santol	Bangkok	- do -	29
4.	Jackfruit	Torres	- do -	30
5.	Guava	Guapple	- do -	34
6.	Calamansi	Ordinary &		
		variegated	- do -	33
7.	Avocado	R.F.	- do -	20
	Subtotal			208
C.	Other Crops			
1.	Balimbing	Kwangtung	- do -	4
2.	Caimito	Lunti; lila	- do -	4
3.	Mabolo	Red	- do -	4
4.	Tiesa	Saludo	- do -	4
5.	Duhat	Giant	- do -	4
6.	Macopa	Pink	- do -	4
7.	Mandarin	Ladu & Sinkum	- do -	4
8.	Tamarind		- do -	4
9.	Pomelo	Lucban	- do -	4
10.	Orange	Valencia	- do -	4
Subtotal				40
Grand Total				650

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6. *Forest trees planted in the species trial*

	Species	Total No. of Plants
1.	Mangium (A. mangium)	126
2.	Mimosa (A. auricukiformis (PNG))	126 (Provenance Trial)
3.	Mimosa (A. auriculiformis (NT))	126 (Provenance Trial)
4.	Fire tree (Delonix regia)	126
5.	Igyo (Dacandrom blancoi)	126
6.	Ipil (Instia bejuya (Los Baños))	126
7.	Ipil (Instia bijuya (Palawan))	126
8.	Kupang (Parkia roxburgii)	126
9.	Supa (Sindura supa)	126
10.	Molave (Vitex paruifloon)	126
11.	Gisok - gisok (Hopea phillipinensis)	126
12.	Acacia pera	126
13.	Anchoon dilaw (C. spectabilis)	126
14.	Kalantas (Toana calantas)	126
15.	Agaho (Casuarina equisitifolia)	126
16.	Toog (Combritedendron quadrialatum)	126
17.	Lipate	60
18.	Salago (Wikstroemia lancedata)	60
19.	Narra (Pterocarpus indicus)	126
20.	Spanish cedar (Cedrela odorata)	126
21.	Red gum (E. camaldulensis)	126
22.	Yemane (Gmelina arborea)	126
23.	Mahogany (Sweitenia macrophylla)	126
24.	Dao (Dracontemelon dao)	126
25.	Amugis (Coordersiodendrum pinnatum)	126
26.	Antipolo (Anthocarpus blancoi)	126
27.	Golden shower	126
28.	Rain tree (Samanea saman)	126
29.	Balahat gubat (sapium luzonicum)	125

Annex 4.4

INDIVIDUAL SITE PROFILE

1. *Region* : 5

2. *Location* : Napulidan, Lupi, Camarines Sur

3. *Site Description*:

   a. Topography:

      - Flat moderate - clonal orchard
      - Species trials - moderate rolling topography

   b. Total Area of Site : 9.5 ha

   c. Distance from road : 350 meters from National highway; 150 meters from barangay road

   d. Distance from nearest community: 300 - 500 meters
   e. Distance from town : 19 km

4. *Project Resources*

   a. Transport vehicle : none

   b. Infrastructures

      - 1 unit baunkhouse (office space,
      - 1 unit nursery shed)

   c. Water supply : 5 min. walk to river

   d. Personnel

      - Resident Site Manager (1)
      - Skilled Laborer (1)
      - Contractual (3)

   e. Tools and equipment:

      - 1 typewriter, 2 puncher, 2 table, wood cabinet, calculator
      - 2 hoe, 2 shovel, 1 hammer, 1 crosscut saw, 1 digger bar, 5 bolos, 1 pruning share, 1 budding knofe, measuring scale, 3 sprinkler, 1 wheelbarrow, and 1 rake

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5. *Fruit tree planted in the clonal orchard*

		Variety	Source	Total No. of Plants
a.	Major Crops			
	1. Coffee	Robusta	Region 10	40 cuttings
	2. Jackfruit	Exelsa Torres;		
		Katutubo	UPLB-IPB	36 grafted
	3. Pili	Mayon		10
				14
				15 grafted & budded
	4. Calamansi		Daet seed farm	40 budded
	5. Mandarin	Ladu	Albay experi rimental	20 budded
	Subtotal			205
b.	Minor Crops			
	1. Orange	Valencia	IPB	15}
		Pineapple		5} budded
	2. Pomelo	Sunwui;	Albay Provl	10}
		Fortich/ Siamese	Nursery	10} budded
		Amoymantan	BPI Lipa	
	3. Cacao	Criollo		22 grafted
		Forastero	UPLB Horti	
	4. Guava	Guapple	IPB	15 grafted
	5. Lanzones	Paete	IPB	10
		Duku		10 grafted
	6. Rambutan	Maharlika	UPLB Horti	15 grafted/
		Siematian		5 budded
	7. Chico	Ronderosa	IPB	10
		Gonzales		10
	8. Avocado	Calma	Bicol experi-	
		Uno	mental	15 grafted
	9. Guyabano	Sour	IPB	10
		Sweet		15
	Subtotal			175

		Variety	Source	Total No. of Plants
c.	Other Crops			
1.	Mango	Carabao		1}
		Pico	IPB	2} grafted
2.	Cashew	Guevarra	IPB	4 grafted
3.	Atis	Green	IPB	2}
		Yellow		1} grafted
4.	Durian	Monthong	Reg. 10	4}
		Chanol		4} grafted
5.	Mangosteen			4 seedling
6.	Santol	Bangkok	IPB	4 grafted
7.	Mabolo	Red	IPB	3 grafted
8.	Macopa	Pink	IPB	3 grafted
9.	Tamarind		IPB	3 grafted
10.	Duhat	Giant	IPB	2 grafted
11.	Tiesa	Saludo	IPB	3 grafted
12.	Caimito	Lunti	IPB	2}
		Lila	IPB	1} grafted
13.	Balimbing	Kwangtong	IPB	3 grafted
14.	Black pepper			13 grafted
Subtotal				55
Grand Total				435

6. *Forest trees planted in the species trial*

	Species	Total No. of Plants
1.	Mimosa	126
2.	Narra	126
3.	Spanish cedar	126
4.	Kupang	126
5.	Mahogany	126
6.	Suja	126
7.	Amugis	126
8.	Rain tree	126
9.	Yemane	126
10.	Paglomborin	126
11.	Mangium	126
12.	Red gum	126
13.	Golden shower	126
14.	Fire tree	126
15.	Gispk-gisok	126
16.	Neem tree	126
17.	Dungon Late	126
18.	Dao	126

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	Species	Total No. of Plants
19.	Agoho	126
20.	Igyo	126
21.	Teak	126
22.	Mabolo	126
23.	Anchoan dilao	126
24.	Acacia pera	126
25.	Balakat gubat	126
26.	Bagras	126
27.	Ipil (Palawan)	126
28.	Ipil (Los Baños)	126
29.	Molave	126
30.	Mancono	126
Total (seedlings)		3,780

Annex 4.5

INDIVIDUAL SITE PROFILE

1. *Region* : 6

2. *Location* : Tiolas, San Joaquin

3. *Site Description*:

   a) Topography : 150 to 180 meters above sea level
   b) Total area of site : 8.05 ha
   c) Distance from road : 1 km uphill thru a graded trail
   d) Distance from nearest community: 1 km
   e) Distance from town/sources of inputs: 60 km to Iloilo City

4. *Project Resources*

   a) Transport Vehicle - none
   b) Infrastructure

      - Nursery house which is also and office, work area, etc. (20 m²)

   c) Water supply

      Water supply for nursery - sufficient and near the river bank. water supply for clonal orchard - 500 meters away, carriage by sledge drawn by carabao and ridge portion

   d) Personnel

      - Site Manager - Contractual (1)
      - Laborers (Regular/Daily)

   e) Tools and Equipment

      - spade (2)
      - shovel (1)
      - drums (2)
      - pickmattock (2)
      - rake (1)
      - pails (5)
      - wheelbarrow (1)
      - sprayer (1)
      - portable typewriter (1)
      - calculator (1)

5. *Fruit tree planted in the clonal orchard*

	Crops	Variety/ Cultivation	Quantity	Method of Propagation
a.	Major			
1.	Chico	Ponderosa	30	grafted
	Chico	Gonzales	25	c/o PMO
2.	Guyabano	Sour	18	c/o PMO
	Guyabano	Super sweet	1	grafted - do -
3.	Jackfruit	Limasa (VES)	25	- do -
	Jackfruit	Limasa (La Granja)	2	- do -
4.	Mango	Carabao	40	- do -
	Mango	Carabao	50	- do -
	Mango	Pico	19	- do -
5.	Atis	Seedless	6	
b)	Minor			
1.	Avocado	Lupina	1	grafted
2.	Calamansi	Guimaras	29	marcotted
3.	Cashew	Dayap	6	c/o PMO-IPB
	Cashew	Guevara	4	grafted
	Cashew	Pariñas	7	- do -
4.	Guava	Guapple	32	marcotted
5.	Orange	Valencia	15	- do -
6.	Pomelo	Aroman I (Davao)	20	grafted
7.	Mandarin	King	6	marcotted
8.	Coffee	Robusta IC-7	5	cuttings
	Coffee	Robusta IC-8	7	cuttings (horticulture)
9.	Pili	Oas	19	grafted(IPB)
10.	Balimbing	Kwantong	4	c/o PMO
11.	Caimito	Lunti	2	- do -
	Caimito	Lila	2	- do -
12.	Duhat	Giant	4	- do -
13.	Mabolo	Seedless	5	grafted
14.	Santol	Bangkok	6	- do -
15.	Tamarind	Sweet	4	c/o PMO
16.	Tiesa	Saludo	4	c/o PMO
17.	Rimas		2	Root Cuttings
18.	Mango	Indian	3	grafted c/o PMO
19.	Macopa	Pink	4	- do - (IPB)
	TOTAL		407	

6. *Forest species planted in the Species Trial*

	Species	Total No. of Trees Planted
1.	Gisok-gisok	126
2.	Dao	126
3.	Ipil	126
4.	Kupang	126
5.	Acacia Pera	126
6.	Panglomboien	126
7.	Teak	126
8.	Salago	126
9.	Kalumpit	126
10.	Rain tree	126
11.	Agoho	126
12.	Molave	126
13.	Canete	126
14.	Bullet	126
15.	Passi	126
16.	Supa	126
17.	Narra	126
18.	Bato-bato	126
19.	Marang	126
20.	Gmelina	126
21.	Antsoan dilau	126
22.	Earpod	126
23.	Neem	126
24.	Red gum	126
25.	Mahogany	126
26.	Mimosa (#15697)	126
27.	Antipolo	126
28.	Akleng Parang	126
29.	Mimosa (local)	126
30.	Lipote	126
31.	Cashew	126
32.	Jackfruit	126
33.	Guyabano	126
34.	Robusta Coffee	126

Annex 4.6

INDIVIDUAL SITE PROFILE

1. *Region* : 7

2. *Location* : Bo. Juanay, Manipis, Talisay, Cebu

3) *Site Description*:

a) Topography : 520-580 (A.S.L.) Above sea level

b) Total area of site : CSO-1.2 ha, (S.P) Species Trials - 5.6 has.

c) Distance from road : Foot trail from camp 6 Manipis approx. 5 km uphill

d) Distance from nearest community : 5 km

e) Distance from town/sources of inputs: 26 km

4) *Project Resources*

a) Transport vehicle - none

b) Infrastructure

- No nursery infrastructure constructed at SCO & S.P. and transfer site June 1990 from Carmen Cebu to Juanay, Talisay Cebu.

- Production Nursery - Constructed water system, bunkhouse, potting shed, etc. at Carmen

c) Water supply

- SCO - Water supply sufficient & 4 m from creek
- S.P. - no water supply

d) Personnel (4)

1. (1) SRM (regular)

2. Skilled laborer (regular)

3. (2) Laborers (casual)

e) Tools and Equipment

Sprayer, garden hose, typewriter, calculator, budding, knife, etc

5) Fruit trees planted in the clonal orchard

Crops	Variety	Quantity	Method of Propagation
a. Major Crops			
1. Atis	Yellow	20	grafted
2. Mango	Carabao	66	grafted
	Pico	20	
	Puerto Rican		
3. Nangka	Torres	60	grafted
4. Chico	Ponderosa	43	marcotted
	Gonzales	15	marcotted
5. Cashew	Guevarra	32	grafted
	R2T4/Farinas	14	grafted
b. Minor Crops			
1. Guava	Dayap	14	grafted
	Guapple	7	grafted
	Calci	25	grafted
2. Mandarin	Szincom	2	grafted
	Ka unyon	2	grafted
	Lady	33	budded
3. Orange	Valencia	26	budded
	Pineapple		
4. Guyabano	Sour	25	grafted
	Sweet	2	grafted
5. Santol	Bangkok	28	grafted
6. Balimbing	Kwatung	6	grafted
7. Lanzones	Paete	7	grafted
8. Calamansi	King calamansi	40	budded
9. Pomelo	Sunwui luk	6	budded
	Orange/fortich	2	budded
10. Avocado	Calma	2	grafted
	Uno		
11. Duhat	Sta. Fe		
	Giant	2	grafted
12. Macopa	Pink	5	grafted
13. Tamarind	Sweet	4	grafted
14. Mabolo	Red	1	grafted
15. Caimito	Lunti	6	grafted

6) *Forest Species planted in the species trails*

	Species	Total No. of trees planted
1.	Narra	126
2.	Lanutan	126
3.	Coffee	126
4.	Atis	126
5.	Mahogany	126
6.	Amugis	126
7.	Anchoan dilaw	126
8.	Golden shower	126
9.	Kapok	126
10.	Kupang	126
11.	Spanish cedar	126
12.	Nangka	126
13.	Paguringon	126
14.	Fine tree	126
15.	Kalumpit	126
16.	Guyabano	126
17.	Mimosa	126
18.	Cashew	126
19.	Mango	126
20.	Bagras	126
21.	Pili	126
22.	Pangantuan	126
23.	Ilang-ilang	126
24.	Duhat	126
25.	Yemane	126
26.	Rain tree	126
27.	Bahai	126
28.	Ipil-ipil	126
29.	Caimito	126
30.	Guava	126
31.	Mancono	126
32.	Ipil	126
33.	Supa	126
34.	lipute	126
35.	Gisok-gisok	126
36.	Igyo	126

Annex 4.7

INDIVIDUAL SITE PROFILE

1. *Region* : 8

2. *Location* : Busay, Babatngan, Leyte

3. *Site Description:*

   a) Topography : 76.6 to slope
   b) Total area of site : 2.22 ha
   c) Distance from road : 900 meters
   d) Distance from nearest community: 1 km
   e) Distance from town/sources of inputs: 33 km

4. *Project Resources*

   a) Transport vehicle - PUJ
   b) Infrastructure:

      Old Nursery - Brgy. Naagasan, Babatngon, Leyte
      New Nursery (Fori building)-Busay, Babatngon, Leyte

   c) Water supply

      - Busay spring

   d) Personnel

      1) (1) SRM
      2) (3) Skilled workers (contrctual)
      3) (3) Emergency laborers

   e) Tools and equipment:

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5) *Fruit trees planted in the clonal orchard:*

Crops	Variety	Qty.	Method of Propagation
a. Major Crops			
1) Guayabano	Dulce/sweet	28	grafted
	Sour	28	grafted
2) Avocado	Evergreen	16	grafted
	Calma	6	grafted
3) Jackfruit	Torres	59	grafted
4) Pili	Katutubo	6	budded
	Mayon/Oas	4	budded
b. Minor Crops			
1) Cacao	Bracilian	24	seedlings
	Forastero	7	seedlings
2) Chico	Gonzales	17	grafted
	Ponderosa	17	grafted
3) Guava	Gaupple	94	marcotted
4) Lanzones	Paete	10	grafted
	Daku	6	seedlings
5) Rambutan	Tuclapin	10	grafted
	Maharlika	7	grafted
6) Mandarin	Szinkom	10	grafted
	Ladu	10	grafted
7) Pummelo	Sunwui luk		
	Siamese/Forttich		
8) Calamansi		20	marcotted
9) Orange	Hamlin	10	grafted
10) Atis	Yellow	4	grafted
	Green		
11) Coffee	Robusta	10	seedlings
12) Mangonteen		4	seedlings
13) Macopa	Pink	2	grafted

6) *Forest species planted in the species trial:*

	Species	Total No. of Trees Planted
1.	Narra	126
2.	Mahogany	126
3.	Yemane	126
4.	Rupang	126
5.	Kalantas	126
6.	Kalumpit	126
7.	Earpod	126
8.	Banaba	126
9.	Nalis	126
10.	Auriculiformis	126
11.	Mangium	126
12.	Anugis	126
13.	Mancono	126
14.	Thailand Acacia	126
15.	Agoho	126
16.	Rain tree	126
17.	Ilang-ilang	126
18.	Kamagong	126
19.	Igio	126
20.	Molave	126
21.	Dao	126
22.	Supa	126
23.	Almaciga	126
24.	Anchoan dilau	126
25.	Szincom	126
26.	Wisak	126
27.	Coffee	126
28.	Pili	126
29.	Cashew	126
30.	Guyabano	126
31.	Lipote	126
32.	Ipil	126

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Annex 4.8

INDIVIDUAL SITE PROFILE

1. *Region* : 10

2. *Location* : Impalutao, Impasugong, Bukidnon

3. *Site Description:*

   a) Topography : ranges from 16-18% slope (rolling terrain)

   b) Total area of site : 10.0 ha

   c) Distance from road : 7-8 km from Sayre highway road

   d) Distance from nearest community: 10 kilometers

   e) Distance from town/sources of inputs: 23 km

4. *Project Resources:*

   a) Transport vehicle - none

   b) Infrastructure

      - Bunk house, nursery shed, jetmatic pump

   c) Water supply - sufficient

   d) Personnel:

      1) SRM (1)
      2) Skilled laborer (1)
      3) Emergency laborers (3)

   e) Tools and equipment:

      - wheel barrow
      - prunning shear
      - spades
      - bolos
      - sprayer
      - typewritter

5) *Fruit trees planted in the clonal orchard:*

	Crops	Variety	Qty	Method Propagation
1)	Coffee	Exelsa	50	cuttings
		Robusta		cuttings
2)	Cacao		32	grafted
3)	Black pepper		10	cuttinas
4)	Chico	Ponderosa	5	marcotted
		Gonzales		grafted
5)	Jackfruit	Torres	13	grafted
6)	Cashew	Farinas	2	grafted
7)	Guyabano	Davao	10	grafted
		Sweet		grafted
8)	Atis	Yellow	3	grafted
9)	Balimbing	Kwantung	4	grafted
10)	Lanzones	Paete	15	grafted
11)	Avocado	Duku		
		Purple		
		06 selection	10	grafted
12)	Mangosteen		15	seedlings
13)	Marang		30	seedlings
14)	Pili	Oas	14	budded
		Mayon		
		Katutubo		
15)	Tiesa	Saludo	2	grafted
16)	Tamarind	Sweet	2	grafted
17)	Macopa	Pink	2	grafted
18)	Mabolo	Red	1	grafted
19)	Duhat	Sta. Fe	2	grafted
20)	Caimito	Lila	3	grafted
		Lunti		
21)	Guava	Auapple	4	grafted
22)	Calamansi	Giant	18	budded
23)	Mandarin	Ladu	14	budded
		King mandarin		
24)	Orange	Hamlin		
		Valencia	10	budded
25)	Pummelo	Pink		
		Magallanes	15	budded
26)	Durian	Chanee		
		1479	28	grafted
27)	Rambutan	Maharlika		
		Seematjan	50	grafted
28)	Mango	Apple		
		Carabao	32	grafted
29)	Santol	Bangkok	25	grafted
30)	Suha		2	grafted
TOTAL			421	

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6. *Forest species planted in the specisl trial*

	Species	Total No. of Trees Plantaed
1)	Kalumpit	126
2)	Mahogany	126
3)	African tulip	126
4)	Supa	126
5)	Akle	126
6)	Rain tree	126
7)	Narra	126
8)	Kupang	126
9)	Lanutan	126
10)	Mancono	126
11)	Amugis	126
12)	Mozzizi	126
13)	Auri/mimosa	126
14)	Acacia pera	126
15)	Phil mapple	126
16)	Anchoan dilau	126
17)	Mangium	126
18)	Fine tree	126
19)	Dao	126
20)	Yemane	126
21)	Spanish cedar	126
22)	Ipil (Pal)	126
23)	Albizzia Julibrizzin	126
24)	Ipil (Buk)	126
25)	Manalaw	126
26)	Kamagong	126
27)	Molave	126
28)	Bahai	126
29)	Lipote	126
30)	Coffee	126
31)	Pili	126
32)	Jackfruit	126
33)	Guyabano	126
34)	Cashew	126

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VOLUME II

SITE SPECIFIC AND SPECIAL AGROFORESTRY DEVELOPMENT PLANS

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CONTENTS

EXECUTIVE SUMMARY

The 16 agroforestry projects in 7 regions were analyzed based on project status and accomplishments using the Participatory Rapid Rural Appraisal at the site level and a workshop-consultation assessment at the regional and national levels.

Immediate requirements for project transition especially for NGO-contracted agroforestry projects were decided by key actors concerned (Farmer Organization, NGO-Contractor and DENR) during this multi-level consultation workshop. Follow-on proposals on the other hand were decided upon based on sustainability criteria using agreed upon checklist. Special projects were also identified primarily based on the innovative strategies used as well as with regards to their relevance to major national programs such as the ISFP, CFP, IPAS, NFP and Mangrove Development. Out of 16 agroforestry site specific projects 11 were identified as special projects. There are 15 site Specific Agroforestry Projects with Capsule Proposals including indicative budgetary requirements.

Additional information on each project is provided in the form of a project profile.

Project proposals for each of the 16 agroforestry projects were designed to accomplish the following objectives:

1. Immediate actions needed for each site specific project after end of project (September 30, 1991); and

2. Follow-on activities beyond September 30, 1991 to enhance sustainability of the existing projects.

The site specific project proposals will be presented following these two major objectives or categories of actions.

A. IMMEDIATE ACTIONS NEEDED FOR EACH OF THE 16 AGROFORESTRY PROJECTS

The recommended actions needed for each of the 16 project sites is summarized in Table 1. This was arrived at in consultation with the farmer organizations, ISFP Division Chiefs, CENROs, PENROs, RTDs and with key officials of DENR in various workshops.

Most of the actions recommended is for the DENR Regional office to arrange turnover of on-site facilities, i.e, animals, buildings, training center, water system and other infrastructure to the existing farmer organizations or to Foundations. This will enhance the capability of farmer organizations to continue on the task of improving their farm production, provide training service to other farmers

and develop new linkages with other institutions for greater sustainability. However, two sites contracted by NGOs (Candijay Mangrove Agroforestry and Murcia Agroforestry) will need bridge financing since both DENR and the contractor NGOs are not committing funds or do not have the capability to provide funds for continuing activities beyond September 30, 1991. The summary of the immediate transition activities required for each site is shown in Table 1.

Table 1. IMMEDIATE AND LONG-TERM PROPOSALS FOR AGROFORESTRY PROJECTS

PROJECT	MANAGEMENT BASE	IMMEDIATE PLAN	LONG TERM PLAN
1. Jose Panganiban (Bicol)	Formerly DENR, now NGO	Turnover to BURDFI	Capital build-up and agri-based industries marketing and product processing
2. Masaraga (Bicol)	University-based NGO	Turnover to BUCA	ISFP Training center; BUCA Social Laboratory; Marketing; Processing; Credit
3. Magdungao (Iloilo)	DENR	Turnover to MAFAI	Training Center; Postharvest; Processing; Marketing and Credit
4. Tagubong (Iloilo)	DENR	Turnover to TAAFAI	Training Center; Livelihood Enhancement; Marketing; TAAFAI to cooperative
5. Murcia (Negros Occ.)	NGO	NFEFI committed to continue but has no financial capability; request follow-on; MOA	Livelihood; marketing; Forest protection
6. Canlaon (Negros Occ.)	DENR	Turnover to RRUFFI	Livelihood Program; Adopt for IPAS; Expansion to neighboring areas
7. Ayungon (Negros Or.)	DENR	Turnover to AUFA Inc.	Training center for ISFP; Farm Development; Expansion through AUFA
8. Sogod (Cebu)	NGO	Turnover to CARE & Farmer Organization	Livelihood Enhancement; Marketing

PROJECT	MANAGEMENT BASE	IMMEDIATE PLAN	LONG TERM PLAN
9. Candijay (Bohol)	NGO	Needs Bridge Financing	Identified as one of 60 sites for ADB-funded mangrove development
10. Visares (Leyte)	DENR	Turnover to EVRDFI	Credit; marketing cottage industry processing and post-harvest program
11. Babatngon (Leyte)	DENR	Turnover to EVRDFI	Credit; marketing cottage industry processing and post-harvest program
12. San Miguel (Bukidnon)	DENR	ISFP of Region will take over for marketing and livelihood project	ISFP Training Center; Expansion in adjacent ISFP site(s)
13. Cosina (Bukidnon)	DENR	ISFP will take over	Elevate Cosina to Implementation cum Policy Research Area (Pilot) for Cultural Community
14. Kiblawan (Davao del Sur)	DENR	Turnover to KRDF Inc.	Marketing and Post-harvest support; Expansion to adj. ISF site.
15. Mariloq (Davao City)	DENR	Turnover to SELF-Farmer Coop.	Livelihood and Expansion to ISFP site
16. Upi (Maguindanao)	DENR	Turnover to SURDA and ARMM	Expansion to new ISFP site in Cotabato

B. FOLLOW-ON ACTIVITIES BEYOND SEPTEMBER 30, 1991

The commonly agreed upon basis or rationale for deciding the focus of the follow-on activities based on the various levels of consultations were the following:

1. Consultations with Farmers and/or Farmer Organizations in the various project sites through the Participatory Rapid Rural Appraisal. Results of the Participatory Rapid Appraisal is attached as an Appendix; and

2. Sustainability - a set of guidelines or checklist of various ecological, social and institutional elements that leads to agroforestry development sustainability was generated and used as basis for assessing the present gains of the project sites and the sustainability elements that need to be further installed for the follow-on. This checklist is shown in Table 2.

In addition, priority or special projects were also highlighted for follow-on based on its role in laying out the foundations for effective institutional arrangements and strategies in support of recently instituted and innovative national programs in the environment and natural resources sector. These national programs were identified with respect to the RRDP community-based agroforestry projects as the Integrated Protected Areas System (IPAS), National Forestry Program (NFP), Integrated Social Forestry Program (ISFP), Community Forestry Program (CFP), SECAL-ENR and Mangrove Rehabilitation. This is shown in Matrix Table 3.

The highlights of the character of these various special projects are briefly described as follows:

a) Masaraga Agroforestry Project - It represents the possible features of an ISFP project linked to a University and serving as a social laboratory.

b) Candijay Agroforestry Project represents a pilot mangrove-coastal community-based resource management project where tenurial instrument and protection and development strategies are being piloted.

c) Kanlaon and Murcia Agroforestry Project represents a pilot strategy for community-based forest protection and buffer zone development relevant to IPAS and critical watershed development and management.

Table 2. SUSTAINABILITY ELEMENTS - CHECKLIST

CATEGORY	STATUS	
	Present	Not Present
I Ecological		
A. SWC		
B. Productivity Increase		
C. Diversity		
D. Sustainable Input(s)		
E. Sustainable Land Use		
II Social		
A. Organization strengthening		
B. Technical strengthening		
C. Capital Build-up		
D. Tenurial Security		
E. Market		
F. Economic Enterprises Present		
III Institutional		
A. Linkages		
B. Political		
C. Policy		

Table 3. Matrix of Special* RRDP Agroforestry Projects

TYPE OF INSTITUTIONAL ARRANGEMENT/STRATEGIES	RELEVANCE TO MAJOR NATIONAL PROGRAMS			
	IPAS	Mangrove CBRM	NFP	ISFP/ CFP
I. INSTITUTIONAL ARRANGEMENT A. University Farmer Organization Tie-up				Masaraga**
B. Farmer Organization Umbrella/Federation		Candijay		Kiblawan JPAP** Visares** Magdungao** San Miguel
C. Farmer Organization-Based	Kanlaon			
D. Cultural Community Type/ Autonomous Region				Cosina Upi
II STRATEGY A. Agroforestry Cum Reforestation	Murcia		Murcia	Marilog

* Agroforestry or Community-based Upland and Coastal Resource Management projects started with RRDP with linkage to major national programs and/or using innovative strategies.

** More advance community-based upland development projects.

d) Murcia and Marilog Agroforestry Projects - pilots and demonstrates the growing effectiveness of a joint agroforestry cum reforestation project.

e) Cosina and Upi Agroforestry Projects - pilots a development cum policy concerns for handling community-based projects dealing with cultural communities (Cosina is dominantly Talaandig, while Upi is Tiruray) ancestral land claims and other culturally-based considerations.

f) Kiblawan and San Miguel Agroforestry Projects - represents greatly enhanced community-based project as combinations of implementation strategies learned from previous experiences were applied systematically.

g) Jose Panganiban, Magdungao, and Visares Agroforestry Projects - represents relatively more advanced stages of development of community-based projects for upland resource management dealing with more different issues of marketing, capital build-up, economic efficiency and other "second generation concerns" after subsistence security.

SPECIAL PROJECT CATEGORY

SPECIAL PROJECTS

Indicative Budgetary Requirement (₱)

		Five (5) Years
1.	Masaraga Agroforestry Project Follow-on and Expansion	6,914,296
2.*	Cogtong Bay Mangrove Management Project	1,690,000
3.	Canlaon Buffer Zone Project	10,628,000
4.	Mariloq Project	6,800,000
5.	Jose Panganiban Project	12,305,000
6.**	Magdungao Project	4,775,958
7.	Visares Project	6,450,089
8.**	San Miguel Project Including Expansion	6,291,150
9.***	Kiblawan Project Including Expansion	8,050,000
10.***	Upi Project	8,479,065
11.	Cosina Project	4,250,000
12.	Sogod Project	10,691,931

* Bridge Financing only for 1 year starting October 1, 1991
** Proposed for 3 years
*** Proposed for 4 years

MASARAGA AGROFORESTRY PROJECT EXPANSION PROJECT
Balogo, Oas, Albay

PROPONENT : Bicol Agricultural and Rural Development Center, Inc. (BARDCI)
Bicol University College of Agriculture
Guinobatan, Albay

and

MASARAGA Agroforestry Farmers' Association Inc. (MAFAI)
Balogo, Oas, Albay

I. INTRODUCTION

A. Rationale

The problem on increasing agricultural production in the uplands and the problem of protecting the environment are distinct concerns that are interrelated with deep complexity. This is one of the paradoxes in present-day development that planners, policy-workers, scientists, extension workers and farmers must grapple with.

Bicol region is principally hilly and mountainous which is practically homogeneous all throughout. The Bicol Peninsula is itself connected by mountain ranges with the more prominent elevations of Calinigan Mountain Ranges. Of the more important elevations in the Province of Albay are Mt. Mayon and Mt. Masaraga, both of which form important watersheds for the irrigation needs of the lowlands, as well as account for a distinct influence on the climate and environmental condition of the province.

It is however, unfortunate that, despite its importance, both mountains are now badly denuded as a result of the illegal logging and, incorrect farming practices perpetuat in its slopes. As in every part of the country today, these and many other associated problems are mainly due to a rapidly increasing population which tend to exert tremendous economic pressures on the natural resources. Studies show that this is further made worse by the lack of education, poverty, indifference of farmers, greed and corruption among government officials and businessmen.

The low level of awareness of farmers in the uplands and the deleterious effects of "slash and burn" farming practices is a primary concern that must be addressed not only by the DENR and Non-Government Organizations but also by educational institutions. It is in this context the Bicol University College of Agriculture has over the years

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played a central role in Agro-forestry and Forestry development in the Region.

One of the University's more successful contribution, has been the implementation of the MASARAGA Agroforestry Project (MAP) at Barangay Balogo, Oas, Albay which has been widely recognized as a premier project in the region in term of accomplishment, but despite this, still much has to be done around the project site to make the project's accomplishments worthwhile in the long run.

B. Statement of the Problem

The MASARAGA Agroforestry Project was funded by DENR-USAID under the Rainfed Resources Development Program (RRDP) and implemented by the Bicol University Development Foundation, Inc. (BUDFI) under a tripartite Memorandum of Agreement among Bicol University, DENR and BUDFI from May 1986 to December 1987 (Phase 1) and under a contract between DENR and BUDFI from January 1988 to December 1990 (Phase 2). From then on, the Bicol University through the BUCA continued to provide technical support to the local farmers' association of the Project known as MASARAGA Agroforestry Farmers' Association, Inc. which now forms the backbone of the Project after funding Phase-out.

As of this date, the project functions as a social laboratory catering to the needs of undergraduate and graduate students of the university as well as training center for the farmers and technical personnel of the Integrated Social Forestry (ISF) Program of the DENR. Such trainings and visitations are being managed and conducted by trained members of the Farmers Trainor Group of the MAFAI, for free or for a minimal fee.

Despite the accomplishments of the project, much has to be done for such accomplishments to have wider impact in neighboring areas. While Mt. Masaraga serves as an important watershed that provides irrigation and potable water for low-lying areas in the municipalities of Polangui, Ligao and Oas, portions of the watershed situated at Barangay Napo and Balinad at Polangui and at another two barangays at Ligao are also denuded. Farmers at these area are more or less aware of the development at the Barangay Balogo but have not had the opportunity to avail of it because of the lack of a concerted effort from concerned agencies and individuals to spread the technologies that were developed and/or tried/tested at Balogo to these other neighboring areas. They also lack a strong organization and community awareness among farmers to properly improve production and environmental conditions in their respective areas.

II CONCEPTUAL FRAMEWORK

From identified problems such as lack of people's awareness on environmental issues, lack of people organizations, financial constraints and lack of technology interventions will be instituted such as Information dissemination, Community Mobilization/Organization and Training, Technology Transfer and Provision of Financial Support all as part of the process of attaining the output of improved environmental awareness, strengthened community organization, Agroforestry Technology Adoption, improved farmer response for project thrusts which shall finally culminate for an improved crop production, income and environmental conditions. These shall lead to the desired project impact which is uplifting the quality of life of the people.

The concept while it aims to improve the quality of life of the intended beneficiaries and indirect beneficiaries, to utilize homegrown talents and technologies which are actually developed in the MASARAGA Agroforestry Project.

To operationalize this proposal the proponents aims to expand the development of uplands (through Agroforestry and soil and water conservation) of the four (4) neighboring barangays, to arrest soil erosion, conserve the watershed areas of municipalities of Polangui and Ligao and to increase farm productivity by at least ten (10) percent.

The concept and operating strategy of the MASARAGA Agroforestry Project (MAP) which has been tried and tested and developed shall be adopted. Lessons learned from the implementation of the MAP shall be given due considerations. The implementation shall be through the MASARAGA Agroforestry Farmers' Association, Inc. (MAFAI) utilizing the farmers as extension workers and for the Bicol Agricultural Development Foundation, Inc. (BARDCI) to handle the financial management. The Bicol University College of Agriculture shall provide the pool of expertise on call bases, to back-up the needs of the association, in planning, implementation, and in monitoring and evaluation of the project. The process documentation shall be undertaken by the BARDCI in cooperation with the University.

Objectives

The overall objectives of the project is to improve the bio-physical and socio-economic condition of upland farmers after five (5) years.

The specific objectives of the project are the following:

1. Institute farm development in the upland areas using agroforestry technologies;

2. Improve farm productivity per unit area;

3. Increase farmers income by 10 percent;

4. Organize one (1) farmers association in each area of expansion;

Target Areas and Beneficiaries

The proposed target area is located at the uplands of the municipalities of Polangui and Ligao. These barangays covered by these municipalities are the following:

Polangui

1. Balinad

2. Napo

Ligao

1. Herrera

2. Barayong

The target participants of the project are the upland farmer of these areas covering about 600 farmers.

Project Components:

For the project to institute development in the proposed expansion area. The following project components shall be undertaken by the project:

1. Technology Adoption

2. Human Resource Development

3. Infrastructure and Facilities Development

4. Process Documentation

5. Environmental Awareness Campaign.

1. Technology Adoption

The adoption of technology on Agroforestry shall be the main tool of development in the area. Specific concern will be devoted to the adoption of soil and water conservation technologies or hedgerow-based farming system.

The following specific technologies shall be undertaken:

a. Establishment of SWC's
b. Adoption of Multiple Cropping
c. Establishment of Nurseries
d. Tree planting
e. Aquaculture

2. Human Resource Development

To effectively implement the technologies and further strengthen existing farmers organization the following activities shall be undertaken:

1. On and Off-site trainings on Agroforestry Technologies
2. Basic Leadership Skills Training
3. Value formation Training
4. Financial Management Training
5. Entrepreneurial skills training

3. Infrastructure

The upland communities should be able to establish and construct farm-to-farm roads and farm to market roads. This structures will help farmers transport their products easily. To attain this objective, the project intends to accomplish the following activities:

a. Construct and maintain graded trails and farm to market roads.

b. Construction of Main and Satellite Nurseries

4. Process Documentation

Another major activity of the project is the project process progress report (PPR). The process documentation intends to capture the overall project experience and strategy and come out with a synthesis of important lessons and insights which can serves as important outputs to similar development undertaking in the future. Data for this undertaking shall be taken from interview with beneficiaries, project staff and existing project reports and documents.

6. Environmental Awareness Campaign

The MASARAGA Agroforestry Project had developed a lot of technologies and had identified indigenous knowledge and soil and water conservation practices. This technologies should be disseminated to other farmers in the Bicol Region and if possible to other region of the country. The project intends to undertake information and dissemination campaign.

The information campaign shall be done through the following activities:

1. Sponsor a 30-minute radio program per week in one of the leading radio station in Legazpi City.

2. Production of technopacks and newsletter

3. Production of posters and comics

4. Publication of relevant articles through existing print media.

5. Production of 30 minute video tape presentation

Implementing Strategies

In the implementation of the project, the following implementing strategies shall be adopted:.lm.80"

1. The MASARAGA Farmers Association Inc. (MAFAI) in coordination with BARDCI shall implement the proposed project.

2. MAFAI shall be given the authority to recruit project personnel and manpower requirement as the need arise.

3. BUCA shall furnish technical assistance on matters of administration, management and technical aspects of the projects.

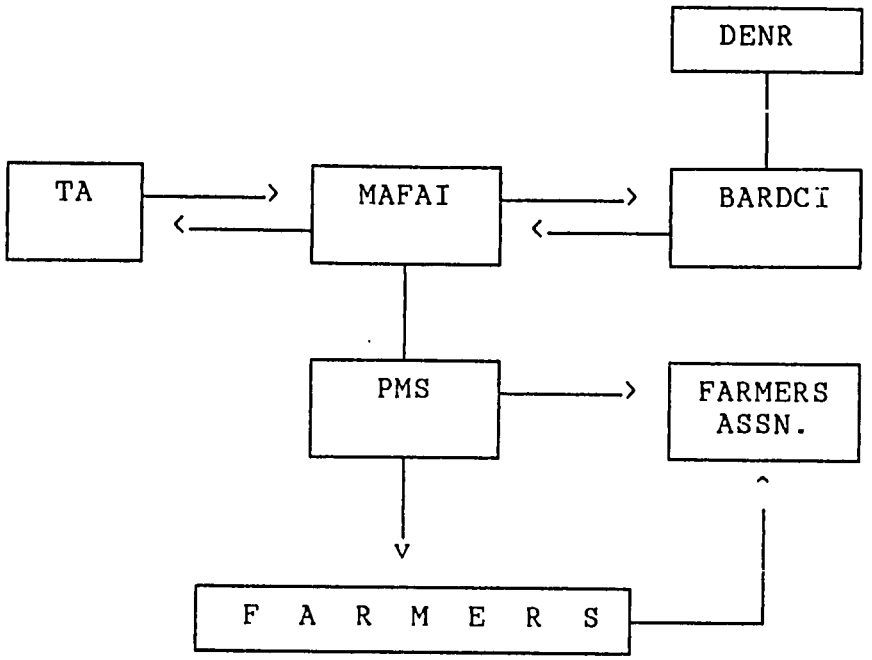
4. The BARDCI shall perform financial management support services seed as supply procurement, accounting, bookkeeping and cashiering.

5. A farmer extensionist shall compose the staff of the project.

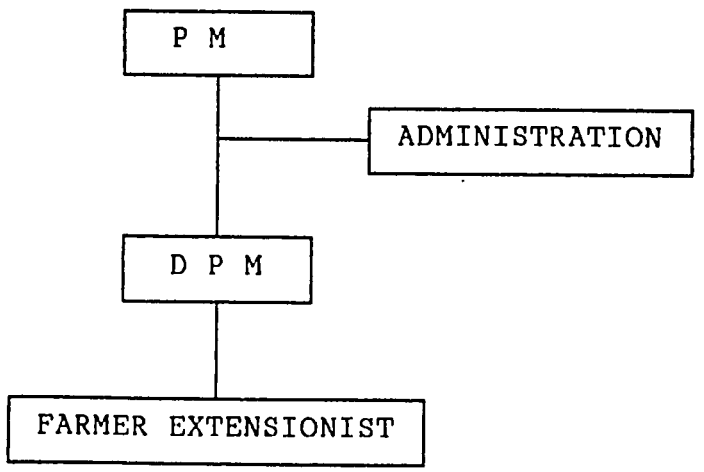
6. Monitoring and evaluation shall be done by BARDCI on a quarterly basis.

7. The Bicol University College and the farmers association continue to maintain and monitor the project should funding assistance ceases.

EXTERNAL ORGANIZATION STRUCTURE



INTERNAL ORGANIZATIONAL STRUCTURES



Target Areas and Beneficiaries

Upland farmers of Barangays

a. Barayong and Hererra of Ligao

b. Balinad and Napo of Polangui

III INDICATIVE BUDGET (₱)

1. Personal Services

PM	- P 6,000 X 13	= 78,000	
DPM	- 4,500 X 13	= 58,000	
CLERK	- 3,500 X 13	= 45,000	
EXTENSIONIST	- 3,000 X 13 X 4	= 150,000	
LABORER	- 92/DAY (22) X 3	= 26,884	
HONORARIUM	- 500/CALL 5/Q (3)	= 30,000	
SUB-TOTAL			P 394,884
2. MOE			500,000
3. FACILITY & EQUIPMENT			200,000
			1094,884
4. ADMINISTRATIVE COST (10%)			109,488
5. COST FOR 1ST YR.			1204,372
INFLATION RATE (10%) FOR THE 2ND & 3RD YRS.			120,437
6. COST FOR THE 2ND & 3RD YR.			1324,809
7. COST FOR THE 4TH YR.			1457,289
8. COST FOR THE 5TH YR.			1603,017
9. TOTAL COST			6914,296

Role of

1. MAFAI

    1. Shall be in-charge of Project operations
    2. Shall perform internal control and Accounting
    3. Perform project internal monitoring and evaluation
    4. Linkaging
    5. Shall be responsible to BARDCI

2. BARDCI

    1. To take charge of the Financial Management
        a) Cashiering
        b) Disbursement
        c) Accounting

    2. To take charge of the Project Monitoring & Evaluation
    3. Shall be responsible to the DENR, hence shall maintain a direct/close coordination.

3. TECHNICAL ASSISTANTS

    1. Provide Assistance to BARDCI and MAFAI and Farmers

    a. Physical
    b. Technical
    c. Training
    d. Linkaging
    e. Planning

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THE COGTONG BAY MANGROVE MANAGEMENT PROJECT
A request for 12 months of bridge funding

PROPONENT: THE NETWORK FOUNDATION, INC.

HVG Arcade, Subangdaku
Mandaue City, Cebu, Philippines

Key contact persons: Ms. Bel Navascues, President
Mr. Tim Ruben, Adm Manager

Tel: 460110 or 83386
FAX: 74886 - Attention: NETWORK

I EXECUTIVE SUMMARY

Staff of The Network Foundation, Inc. have been implementing a community based coastal resource management (CBCRM0 project for the Department of Environment and Natural Resources (DENR) under the USAID funded Rainfed Resources Development Project (RRDP) since January 1989 in the two municipalities that border Cogtong Bay, Candijay and Mabini, Bohol. The project's intended purposes are to (i) gain experience in CBCRM; (ii) validate and build upon CBCRM learnings from the Central Visayas Regional Project which pioneered this approach beginning in 1984; and (iii) to test new strategies in mangrove management.

The new strategies for testing were (i) to place existing mangrove forest under family management using stewardship agreements, i.e. to initiate community forest management in mangroves; and (ii) to effectively "trade" this resource access for agreement by the community to respect the wilderness status of four uninhabited islands within the bay. Community forest management would remove mangrove from its existing open access status and allow for its rehabilitation. It is believed to be the best way, and perhaps only way, to save and maintain a healthy national mangrove resource.

In two-and-one-half years under the RRDP project, 11 of 14 coastal barangays within the two municipalities have been organized and 13 fishermen associations formed. Association members have successfully undertaken activities in (i) mangrove forest protection (1000 ha), reforestation (250 ha) and rehabilitation (27 ha); (ii) artificial reef construction and placement (1100 concrete modules); (iii) oyster and mussel culture (37 family plots); (iv) the prevention of illegal fishpond development (>100 ha); (v) the control of illegal fishing activities within the two municipalities; and (vi) establish a good working relationship with the two municipal governments. The site has also provided orientation and training in community based coastal resource management for government workers, NGO members, international lending agency staff (ADB and USAID) and five Bohol School of fisheries students.

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The start of the community forest management in mangrove was, however, delayed until Mid-1991 because of difficulties in getting DENR approval, particularly at the CENRO level, although the official policy was in place early in 1990. This activity began only in the second quarter of 1991. Progress have been made in community acceptance of mangrove wilderness and it is expected to go faster as more mangrove is brought under community management. These activities and two others are currently being piloted at this site.

1. The rehabilitation of existing mangrove forest by local communities has only recently been allowed by the DENR. The first trial was begun on 27 ha early in 1991 using a basic management approach intended for nation-wide replication under the recently approved Mangrove Stewardship Agreement. It would restore an upper canopy of tall trees while allowing sustainable forest utilization and sea farming beneath that canopy. Specific methods suitable for use by fishermen are being tested and a training manual developed.

2. None of the Philippine's 52 declared mangrove wilderness islands is currently being managed or protected (except on paper). They are being utilized just as all other mangrove area are. Site staff are working with the fishermen association formed under the project to identify mechanisms acceptable to the community whereby they would respect the wilderness status (no utilization) and actively protect the four islands (totaling 225 ha) found within the Bay. Management by local communities is probably the only viable option in Cogtong Bay and nationally given the small size and scattered distribution of the 52 declared wilderness islands.

3. Mangrove areas which were released to the BFAR for fishpond development but remain vegetated with mangrove species will be reverted to the DENR under a soon to be approved DA-DENR Joint Memorandum Order. The actual reversion process would be piloted in Cogtong Bay for over 300 ha which qualify and the reverted areas placed under community based management.

4. The recovery and rehabilitation of 35 ha of mangrove forest lands which have been illegally cleared and fishpond development begun. The DENR has little experience in this area. Community organization and the availability of attractive alternatives are expected to be crucial to early success.

Cogtong Bay serves as the prototype site for the DENR's forthcoming US$53 million ADB financed Mangrove Development Project (MDP) which would place 153,000 ha of existing mangrove forest under rehabilitation and management by local communities at 60 sites nationwide. Under the MDP, the Cogtong Bay site would be (i) expanded and implementation continued for a five year period, and (ii) used as a primary training area for NGO staff

and DENR counterparts who will assist communities to implement the other sites. This is the only NGO operated site in the nation with ongoing activities in mangrove rehabilitation and management combined with related coastal resource management technologies and experienced staff.

Unfortunately, ADB financing for the Mangrove Development Project has been delayed for one year and the Cogtong Bay site faces a funding gap effective September 30, 1991 when the RRDP Cycle II terminates.

The proposed 12 month extension from October 1991 through September 1992 would stress mangrove management activities in preparation for implementation of the national Mangrove Development Project. Major areas of concern include:

1. Maintaining the existing experienced staff and the mangrove and other coastal resource management gains made to date;

2. Allow a significant expansion from 27 to 227 ha of mangrove area brought under rehabilitation and management by the local community;

3. Allocate 200 ha of nipa to the traditional users;

4. Allow a series of small scale mangrove related technology trials important to the MDP to be established, including non-bacauan planting trials, sunken brush parks, and the collection of harvest data from mangrove related fisheries.

5. Allow this site and its experienced staff to continue to function as a hands-on training venue and be available as a primary training site for the MDP.

AMOUNT REQUESTED: ₱1,690,000 over 12 months

II BACKGROUND

Community based coastal resource management (CBCRM) was piloted by the Central Visayas Regional Project Nearshore Fisheries Component, beginning in July 1984. It is an integrated approach to address coastal marine resource degradation and the associated poverty of coastal residents who depend on those resources. The RRDP mangrove project was modeled after CVRP and represents the second project cycle in what is becoming a series. CVRP was a high budget, government managed pilot. RRDP is a low budget, NGO managed activity which has verified CVRP learnings, extended them and helped prepare the way for a large national project.

Community based is a people centered approach. It recognizes that coastal residents make the daily decisions about how coastal resources will be managed. Thus, they must also be the implementors of any program which seeks to improve the management

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of those resources.

Community organization is use to catalyze cooperative efforts on problems of mutual concern. It is provided by p;project staff who live full-time in the barangay. They form groups with common interests and activate the barangay level governmental planning unit, the Barangay Development Council.

Situation analysis is a process taught and catalyzed by project staff which allows the community to collectively identify constraints to their development' prioritize needs and plan activities to overcome those constraints. Learning about the natural, social and economic systems which affect their lives is a part of the process. The technologies used to address problems must be simple, appropriate and cost effective. After an activity is implemented, the process is repeated to analyze the new situation.

Natural leaders within the community are trained to continue the community organization process as well as to extend the technologies used. These leaders and project staff must always be fully accountable to the community, particularly on financial matters.

The Project Site

Coqtong Bay is located in southeastern Bohol in the Central Visayas region. Two municipalities, Mabini on the north and Candijay on the south, share the bay's 10,000 h of municipal water which include 2000 ha of mangrove forest land (Figure 1). About 1400 ha of the mangrove forest land is vegetated, the balance having been converted to fishponds.

The Bay is bounded on the north by Cabulao point and on the south by Lamanok Point. The outer portions are bordered by limestone hills and a thin fringe of mangroves. The inner portion of the Bay has extensive mangrove stands bordered by irrigated rice and coconut lands. Three rivers empty into the inner portion of the bay which is very shallow and contains 3000 ha of seagrass meadows. Four mangrove islands (Lumislis, Catiil, Tabandio and Colangaman) totalling 225 ha in area are found at the outer edge of the sea grass meadows. The islands have been declared mangrove wilderness by the national government. Sparse coral formations fringe the outer edges of the sea grass meadows. The outer edge of the Bay is delimited by Tagaytay Reef, a large (0.6 km x 7 km) sand and coral structure found 2 to 3 kilometers off the edge of the sea grass meadows.

Fishermen and others dependent on mangrove resources constitute about 15 percent of the work force in these two towns with a total population of 52,500 persons in 9300 households. the fishing is almost entirely small scale, with handlines, gill nets, spears, cast nets, fish corrals and fish traps being the dominant gears. One commercial bagnet ("basnigan") is based in

Candijay and five Danish seines are based in Mabini, just outside the project site.

Mud crabs ("alimango") and mangrove clams ("imbao") are important mangrove fisheries while shrimp and prawns are caught commonly in the rivers. Rabbitfish ("dangiit"), mullet, blue crabs, sea cucumber and a sea weed, *Gracilaria*, are taken from the seagrass meadows. Small pelagics, including sardines and mackerel, dominate the catch of offshore.

Nipa shingle making is a major income generating activity, particularly in the inner portion of the Bay where nipa grow on some 200 ha. Mangrove firewood gathering is the primary source of income for a relatively few families.

Fourteen coastal barangays are found bordering Cogtong Bay, six in Candijay and eight in Mabini. Another five Mabini coastal barangays are located north of Cabulao Point. The national highway bypasses the Bay proper but passable secondary roads which demark the north and south boundaries of the Bay. Agriculture dominates the economy in both municipalities and 1985 average family income reported to be P5000 annually.

Entry of the Network Foundation, Inc.

The contract to implement this site for DENR was won in competitive bidding in late 1988. As Network had personnel with extensive experience in rural development but no formal record as a foundation in project implementation, Network staff prepared the proposal for ACIPHIL Consultants, Inc. a Filipino company based in Cebu, which had prequalified with DENR. Under an agreement with ACIPHIL, Network staff have implemented the project. This proposed bridging grant and the project expansion under the MDP will be entirely Network Foundation, Inc. activities. ACIPHIL is in full agreement with this approach.

The RRDP Mangrove Project

The RRDP Mangrove Rehabilitation Project was developed by the DENR for three primary purposes, (i) to gain experience in the design and implementation of community led, NGO assisted coastal resource management, (ii) to validate CVRP learnings in coastal resource management, and (iii) to develop and test other new approaches to mangrove management. The project are covers the entire Cogtong Bay, from Kabulao Point on the north to Lamanok Point in the south (Figure 2). Implementation began in January 1989 with the following basic targets:

1. To organize the residents of eight (8) coastal barangays to undertake the coastal resource management activities listed in items two to five below.

2. To assist area residents to:

   a. rehabilitate 400 ha of mangrove forest using an Integrated Social Forestry (ISF) approach and to receive stewardship agreements over the treated areas.

   b. construct and place 80 clusters of 25 concrete artificial reef modules each.

   c. initiate the culture of commercial oyster and green mussels.

   d. control the use of illegal and destructive fishing methods in the project area.

3. To identify and test new approaches in mangrove rehabilitation and management.

The results of the RRDP project after two and one-half years implementation are summarized in Table 1. The project has been very successful on the whole but certain constraints have prevented even greater success.

Community organization has been undertaken in 11 barangays, three more than the original target of eight. The additional barangays were organized at their own request after residents saw benefits in the organization process and in the project.

Table 1. A Summary of RRDP Project Targets and Accomplishments, January 1989 - June 1991.

Activity	3 year target	2.5 year accomp	% of target
Coastal barangay organized	8	11	138
Fishermen association (FA) formed	8	13	136
Mangrove			
Reforestation (ha)	75	150	200
Enrichment (ha)	300	100	33
Stewardship agreements issued	265	250	94
Assisted natural regeneration in wilderness areas (ha)	25	15	60
Rehabilitation of existing forest (ha)	0	27	
Replanting of illegally cleared fishpond area (ha)	0	15	
Prevention of five illegal fishpond fishpond developments (ha)	0	100	
Protection from commercial firewood cutting by outsiders (ha)	0	1000	
Artificial reef clusters (25 concrete modules each) constructed and placed	80	44	55
Mariculture			
Family oyster plots established	18	17	55
Family green mussel plots established	22	20	91
Illegal fishing largely controlled	yes	yes	100
Credit obtained by a FA	0	5	
Trainings given			
Small group	0	0	
Individual "on the job" for Bohol School of Fisheries students	0		

The 400 ha mangrove rehabilitation target envisioned the rehabilitation (including reforestation) and management of existing mangrove forest. This was consistent with DENR Manila's expressed desire to test new methods of mangrove management. Difficulties were encountered at the CENRO (district) level because existing DENR regulations did not specifically allow this activity. Site staff were restricted to the afforestation of mudflats and the reforestation of very sparsely stocked mangrove

areas. The required 400 ha of suitable area for these activities did not exist within the project site. The regulations were changed in March 1990 and specific guidelines issued in February 1991 but the CENRO refused to allow this activity until June 1991 when orders were issued to the CENRO directly from Manila. Mangrove rehabilitation trials are finally underway on 17 hectares.

DENR experience to date has been in mangrove reforestation. No one in southeast Asia and probably the world has experience in small holder mangrove rehabilitation and management. The mangrove forest rehabilitation trial is testing a management system which would re-establish an upper canopy of large trees while allowing the continued traditional use of small trees and saplings growing beneath the upper for fuelwood and poles. The area of shrubby Rhizophora ("bacauan") being used in the trial is typical of degraded mangrove areas throughout the country. Practical experience is needed before this method is used nationwide.

Several additional mangrove related activities occurred which were not envisioned in the original project.

1. Barangays organized and aided by the project have prevented the illegal development of five fishpond areas which would have destroyed at least 100 ha of existing mangroves. In one instance, barangay residents physically stopped the clearing and actually filed a court case against the fishpond developers. Several frustrated illegal fishpond developers have indicated that they are just waiting for the RRDP project to end so that they can begin their developments.

2. Previously organized barangay residents, acting largely on their own, replanted 15 ha which had been illegally cleared for fishpond development.

3. When the project began, mangroves were being illegally harvested on commercial scale for firewood and poles. Truck loads and large motorized banca loads left the area regularly. Through a combination of community organization, education and law enforcement, this practice has been stopped.

The site is also being readied for rapid pilot implementation of a Joint Memorandum Order currently being negotiated between the DA and the DENR which would revert back to DENR administration all mangrove areas which have previously been released to the DA for fishpond development and are still forested. This Order would result in reversion of more than 300 ha within the site. The experience gained in Cogtong Bay will be applied elsewhere in the country.

The RRDP site staff have also been drawn into an illegal fishpond development controversy immediately north of the RRDP site but still within the municipality of Mabini. About 30 ha of mangrove forest land have been illegally cleared over a person of years

but only one small functional fishpond has been completed.

The RRDP staff have responded to complaints from within the community and the DENR is readying cases against the individuals involved. It would be relatively easy to get the area reforested and the adjoining mangroves under management by the community if DENR proceeds with the cases and a community development team is placed in the area. The long term tenure provided by a Mangrove Stewardship Agreement is expected to facilitate reforestation and be a very strong deterent to further illegal fishpond development.

Fishermen in both Candijay and Mabini are requesting the creation of sanctuary areas in sea grass meadows where large numbers of spawing rabbitfish (dangiit) are now being caught each year. The two areas recommended by the fishermen each ajoin mangrove wilderness islands. The RRDP staff are suggesting to the communities that the sea grass meadows, mangrove wilderness island and nearby coral reefs be incorporated into a marine sanctuary. Two such sanctuaries, one in each municipality, are envisioned.

Concrete artificial reef module construction and placement has been successfully undertaken by the fishermen associations in most barangays. This is the most expensive resource management activity undertaken and cash flow problems, which have plagued the project since day one, have limited accomplishments in this activity. Nonetheless, 44 clusters containing 1100 concrete modules have been successfully placed.

Seventeen commercial oyster and 20 green mussel family sized plots have been established as planned. The oyster plots are situated in the inner part of the bay and build upon breeding stocks established by the Department of Agriculture before RRDP began. The introduction of green mussels failed on the first try due to high mortality during the transport to the site. A second try succeeded and the plots, located in the outer portion of the bay, show abundant signs of natural reproduction. Family owner/managers will use proceeds from their harvests to finance expansion of their areas.

Dynamite fishing within the site has been controlled using a combination of community organization, education and law enforcement, including stopping the sale of dynamoited fish in local markets. Only two legal cases needed to be filed. The remaining fishermen have benefitted from improved harvests as what formerly went to dynamiters is now theirs. The municipality of Mabini has established a regular marine patrol which is still needed as three extended families of hardcore dynamite fishermen are based at Tintinan Island, Ubay a few kilometers north of the site. Baby trawls from Ubay also sometimes encroach on Mabini waters.

The Cogtong public market building lost its roof in a 1986 typhoon. One-fourth of it is being reconstructed to provide an

office and small dormitory for the RRDP staff. The municipal government is providing lumber and GI sheet from the old municipal building which is being replaced, the barangay is providing labor and the RRDP site has allotted P50,000 to purchase other materials. Through this cooperative venture, the project, which has been renting quarters, will have its own office and dormitory. A second fourth of the market building will be rehabilitated into a training center and kitchen using a similar local government/community/project cooperative effort.

Credit was obtained from the Department of Trade and Industry (DTI) by five fishermen associations for the purpose of constructing fish pots with which to harvest from artificial reef areas. Site staff are monitoring loan utilization and repayment for the DTI.

This site has, in its short life, become a training ground for others in community based coastal resource management. It is the only NGO implemented project of its kind in the country and, with the older government implemented CVRP site in Talibon, Bohol, is one of two of the best living examples of community based coastal resource management in the country. Specific training activities undertaken to date include:

1. Full time "on-the'job" trainings in CBCRM as a part of the RRDP implementation team for periods of 3 to 6 months have been provided for five students from the Bohol School of Fisheries which is also located in Cogtong, Mabini.

2. Short term CBCRM trainings have been provided for staff from two NGOs (OISCA and ASIN) and orientation tours for a number of groups from various Philippine government agencies (DENR, DA, Congressional Staff), USAID and the Asian Development Bank.

The demand for orientation and short term trainings in community based coastal resource management is increasing. The Fisheries Sector Program of DA in particular has asked for trainings for DA and NGO staff who will be implementing similar activities in twelve bays around the country.

Finally, The project preparation team for the ADB financed Mangrove Development Project of the DENR has specifically recommended that this project site be continued for an additional five years under that project and be used (along with the CVRP site) as the primary training venue for NGO and DENR staff who will implement 59 other sites nationwide under that project.

In summary, the Cogtong Bay site under RRDP has, using an NGO and at lower cost, reaffirmed the basic learnings of CVRP, i.e.:

1. Fishermen are willing and able to become effective marine resource managers if given the organization, opportunity and appropriate guidance.

2. Fishermen will, if properly approached, volunteer their time and energy to construct artificial reefs, plant and manage mangroves and control illegal fishing. Payment for their labor is not required.

3. Illegal fishing can be controlled by coastal communities with assistance from local government.

An additional learning is that coastal communities can control illegal fishpond construction if given proper orientation and administrative support.

The short implementation period to date, 2 years and 9 months, combined with the delay in protecting mangroves by placing them under a MSA means the site is not ready to stand alone. The existing forest is still a commons and community development should continue.

The site is, at this time, a most valuable resource because of (i) the experience of its staff, (ii) the ongoing pilot activities, especially the rehabilitation by small holders of heavily abused mangrove forest. It is also helping the community to hold the line against illegal fishpond development. Its continued operation will be of great value as a prototype site and training ground for the Mangrove Development Project.

THE PROJECT

Under the proposed 12 month extension, the site would maintain its accomplishments to date and concentrate on mangrove management, particularly the four pilot activities, and begin a series of mangrove related pilot studies important to implementation of the MDP. Planned activities and targets are presented in Table 2 and detailed below.

Community Organization and Development

The 11 barangays and 13 fishermen associations organized to date would be maintained and strengthened. In addition, the remaining three coastal barangays within the original project area would be organized and a fishermen or mangrove user association organized in each.

The site would be expanded slightly to include three barangays in northern Mabini where some 30 ha of forest lands have been cleared and fishpond development begun. The project will organize fishermen in these barangays, educate them in CBCRM, and offer assistance in mangrove reforestation and the issuance of Mangrove Stewardship Agreements. This will be combined with an orchestrated law enforcement effort by the DENR against the illegal pond developers (see below) to regain control of the area and the reforest it.

Table 2. A Summary of Proposed Targets for the Period October 1991 through September 1992.

Activity	Target
New barangays organized	6
Organized barangays maintained	11
New fishermen associations (FA) formed	6
Existing fishermen associations maintained	13
Mangrove/fisheries users and users survey conducted and analyzed (barangays)	6
Mangrove	
Continued protection from commercial firewood cutting by outsiders (ha)	1000
Conversion of existing stewardships agreements to Mangrove Stewardship Agreements with management plans (units0	250
Maintain rehabilitation and management of existing mangrove forest (ha)	27
Initiate rehabilitation and enrichment of existing mangrove forest (ha)	200
Allocation and improved management of existing nipa areas (ha)	200
New Mangrove Stewardship Agreements issued	400
Conversion of illegal fishponds to mangrove plantations	35
Establish marine sanctuary (unit)	1
Technology Development	4
Planting trials, non-bakauan species	6
Pilot sunken brush parks (unit)	20
Pilot Gracilaria raft culture	1
Collect harvest data on mangrove associated fisheries, imbao, alimango and sunken brush parks (studies)	3
Alternative firewood supply trial (on land)	1
Maintain the following:	
Artificial reef clusters	44
Family oyster & green mussel plots	37
Control of illegal fishing	yes
Training given	
Small group	on demand
Individual "on the job" for Bohol School of Fisheries students	5
Credit for Fishermen Associations	on demand
Training Center/meeting room constructed	1

Improved Resource Users and Uses Survey

As each barangay is organized, a barangay profile is prepared which contains, among others, information on coastal resource users and uses. In preparation for the allocation of larger mangrove areas and other coastal resources (e.g. alimango, imbao, etc.) a more detailed inventory of marine coastal resource users and uses will be undertaken and entered for computer analysis. The technical advisor will assist in the survey questionnaire preparation and specialists at the DENR will provide a data base storage program and analysis package. This survey will be undertaken in at least six barangays during the year.

Mangrove Management Activities

1. Mangrove protection against commercial scale cutting and illegal fishpond development would be maintained for the 1000 ha of existing forest within the site.

2. The conversion of existing stewardship agreements into Mangrove Stewardship Agreements (MSA) is required under DENR Department Administrative Order 15, S-91. This would be done in coordination with the CENRO for the 250 existing stewardship agreements. Because existing mangrove now be included, many existing stewardship areas containing only new plantations will be now enlarged to include adjoining existing forest.

3. The rehabilitation of existing mangrove forest will be contained on the 27 ha begun and this area will be expanded by another 200 ha. New areas would include some of those reverted from "available for fishpond development" status and some non-bacauan sites to gain experience in their rehabilitation.

4. The allocation of nipa areas under MSAs will begin in the inner portion of the bay. Nipa shingle manufacture is an important source of income for many area families. While traditional family claims have been respected for generations, large areas were released for fishpond purposes but remain undeveloped. They will be returned to forest land status upon implementation of the DA-DENR Joint Memorandum Order and the family claims can then be placed under Mangrove Stewardship Agreements to provide secure, long term tenure. Minor improve both the quality and quantity of the product. Two hundred hectares are targeted.

5. The recovery of illegally developed fishponds (35 ha) would be undertaken in the three expansion barangays. A coordinated combination of community orgarization and education, offers of secure tenure under a MSE for areas reforested, the sensitization of fiscals and judges to national mangrove policy and law enforcement by the DENR and local government will be used. Success in this example should make the same job much easier outside the site.

6. Mangrove/marine sanctuary establishment efforts will continue with the communities. Each of the two proposed sanctuaries would contain (1) sea grass meadows utilized by "dangiit" (a rabbit fish) for spawning and as a nursery ground, (ii) one or three mangrove wilderness islands (depending on the municipality) and (iii) coral reef areas just to the seaward of the mangrove islands. Formal establishment of one of the two projected sanctuaries is targeted for the year.

7. Alternative firewood source pilot. A forest land area extends along the south coast of the bay. The lower hills are cleared for farming occasionally while the steeper upper slopes are still forested. One or two willing claimants on the lower slopes would be assisted to establish contour hedgerows of species suitable for firewood production (probably ipil ipil) as an alternative to mangrove as a firewood source.

   In longer term, Network is planning to apply for a community forest management project in this area and two smaller partially forested areas in Mabini.

Technology Development Trials

1. Planting trials of non-bakauan species will be undertaken to gain experience with them. Simple, direct planting techniques would be used. Target species include:

   a. The *Avicennia* spp. (api-api, bungalon, piapi, etc.) are prolific seeders and appear resistant to oyster and barnacle attack but they are not very desireable for firewood or other uses. Thus people normally do not plant them. They could, however, be used to provide basic cover on sites which are difficult to reforest directly with bacauan and later as a nurse crop for the interplanting of more desireable species.

   b. *Tabigi* (*Xylocarpus granatum*) is being harvested heavily for fuelwood although larger trees can provide excellent flooring material. Simple replanting methods are needed to sustain this resource which prefers drier sites in the upper part of the estuary.

   c. "Busaing" (*Bruguiera gymnorhiza*) and "dungon late' (*Heritiera littoralis* are large trees which produce good lumber. "Busaing" provides very durable house posts and "dungon late" a rich brown wood of considerable value.

2. Sunken brush parks will be introduced in suitable areas. This native technology is used in the Tagbilaran, Bohol area. A 25 m long by 5m wide by 1.5m deep hole dug in a natural opening within the mangrove area and filled with brush. Firm soil is required in a place where the edges of the hole will be exposed only at low, low tide. Fingerlings of various fish species, particularly kitong - a rabbit fish, find this haven and use it as their home. Nine to ten months are required for them to grow to harvestable size. An average of sixty kilos can be harvested per hole annually and up to four holes constructed per hectare. These units would be developed by interested MSA holders.

3. Raft culture of Gracilaria, a brackishwater seaweed, would be tried using wild stocks in the bay which are currently being over harvested. Research indicates this alga can be cultured by trying seed pieces to nylon lines supported by a bamboo raft, a method used successfully with *Eucheuma*.

4. Harvest data will be collected for alimango (mud crab), imbao (mangrove clam) and sunken brush parks. Alimango and imbao are high value species harvested from mangrove areas but natural stocks of both are declining due to overharvesting. Data are needed on harvest per unit of effort, value of the harvest and the size of the individuals harvested to evaluate the status of the existing resource and its economic value to the community. This information would be used as the basis for developing harvest management plans. The alimango have potential for backyarad "fattening" over a period of three weeks which can increase their value by a factor of five to seven if sufficient volume can be generated.

   Sunken brush park would be collected in Tagbilaran as well as in Cogtong Bay for purposes of comparison and to better document the Tagbilaran activity. The data collector will have to gain the trust of the Tagbilaran sunken brush park users so that he can be present at harvest time to record the identity, weight and size of the catch.

Training and Orientation

The site will continue to serve as a venue for orientation tours and trainings in CBCRM as they are requested. An additional five students from the Bohol School of Fisheries would avail of three to six month on the job trainings.

Activities to be Maintained

Existing acquaculture activities, oyster and mussel culture, will be maintained by the community but the project will not fund further expansion at this time. Credit arrangements will also be facilitated as they are needed. The control of illegal fishing within the Bay will be maintained in cooperation with the local governments.

FACILITIES AND EQUIPMENT

Existing equipment purchased under the RRDP project will be retained for use by the staff under an agreement with the DENR. These consist of one motorcycle, one 16 hp pumpboat, and office furniture and equipment. A second motorcycle belonging to Network would be retained on site as well.

New equipment requested under this proposal include one motorcycle, one computer with printer and UPS, and a base radio with two hand held radios. These would become Network Foundation property. The motorcycle would augment the project's very limited existing ground transportation in a difficult site. The motorcycle would be particularly useful in reaching the three extension barangays in northern Mabini. The computer would allow on-site analysis and ready access to user and uses survey information. It would also facilitate report preparation and general office work. The base radio would solve a most difficult communications problem (telegrams now take at least four days to reach Cogtong from Cebu or Manila). The site could link with any one of several radio nets (DENR and/or Local Government) to improve communication with the outside. This would facilitate making arrangements for visitors and for a more rapid law enforcement responses.

Funding in the amount of ₱50,000 is also being requested as a contribution to the rehabilitation of another one fourth of the old Cogtong barangay market into a project training and meeting room and kitchen. These funds would compliment materials donated by the municipal government and labor from the community.

STAFFING

The existing complement of eleven site staff will be retained. Included are the Site Manager, four Resource Management Specialists, one each of Process Documentation Specialist, Accountant, Supply Officer, Clerk, and two Boat Operators. One additional Resource Management Specialist would be hired to assist in the expansion. Staff member profiles and job descriptions are found in Annex 1. Staff members who are now working in artificial reef construction and oyster and mussel culture will assume responsibility for the sea farming trials and assist with the expanded mangrove management program.

Two senior advisors, one technical and one in community organization, have been assisting project implementation and will continue to do so. Dr. Fred Vande Vusse, who is presently with the DENR in Manila under USAID funding, brings ten years of Philippine CBCRM field experience dating back to the conception of the CVRP NSF component. He will continue to provide technical support under his DENR terms of reference. Mr. Warren Ford has over 25 years experience in the Philippines in community organization and development. Mr. Ford is presently based in

Cagayan de Oro and transportation and a modest stipend are provided for him. Each advisor would visit at least once a quarter.

ORGANIZATION AND MANAGEMENT

Implementation from October 1, 1991 onward will be solely by The Network Foundation, Inc using the same basic approaches and procedures used under the RRDP. Close continued support will require from the two municipal governments involved and from the DENR. The DENR link is essential because the site is piloting several activities for the DENR to use in the Mangrove Development Project and because the site will go back under the DENR officially in 1992 as a part of that project.

WORK PROGRAM AND BUDGET

A work program based on the targets presented in Table 2 is presented as Table 3. A summary budget totaling ₱1,600,000 and supporting detail are presented as Table 4 and a quarterly cash flow projection as Table 5.

A modified quarterly cash advance system is requested. The initial advance would be based on a detailed work and financial plan covering four months. A quarterly accomplishment and financial report will be prepared at the end of the first quarter and submitted with a detailed work plan and budget for the second quarter. This would serve as the basis for the second quarter release.

Table 3. WORK PROGRAM

Activity	O	N	D	J	F	M	A	M	J	J	A	S
Community Organization												
Maintain existing organization	—	—	—	—	—	—	—	—	—	—	—	—
Enter 3 new barangays, old site		—	—	—	—	—	—	—	—	—	—	—
Enter 3 new barangays, expansion		—	—	—	—	—	—	—	—	—	—	—
Mangrove Management												
Mangrove protection	—	—	—	—	—	—	—	—	—	—	—	—
Expand mangrove rehabilitation	—	—	—	—	—	—	—	—	—	—	—	—
Convert old CSC to MSA	—	—	—	—	—	—	—	—	—	—	—	—
Allocate nipa areas					—	—	—	—	—	—	—	—
Recover illegal fishpond areas						—	—	—	—	—	—	—
Establish mangrove/marine sanctuary												
Technology Development												
Planting trials		—			—			—			—	
Sunken brush park establishment			–	–	–	–	–	–	–	–	–	–
Raft Culture of Gracilaria												
Collect harvest data	—	—	—	—	—	—	—	—	—	—	—	—
Maintain other accomplishments and activities	—	—	—	—	—	—	—	—	—	—	—	—
Training		—	—	—	—	—	—	—	—	—	—	—
Construct training center		—	—	—								

Table 4. INDICATIVE BUDGET

ITEM	AMOUNT (P '000)	TOTAL AMOUNT (P '000)
I. PERSONAL SERVICES		841.4
II. OPERATING EXPENSES		450.1
Travel	112.7	
Trainings, Meetings	84.7	
Supplies and Materials	30.6	
Office/Utilities/Communication	26.4	
Repairs and Maintenance	26.4	
Other Services	100.0	
Vehicle Operating Costs	69.4	
III. CAPITAL OUTLAY		245.0
IV. MANAGEMENT FEE (10% of I - III)		153.7
TOTAL		1,690.2

MT. CANLAON NATIONAL PARK AGROFORESTRY BUFFERZONE PROJECT
Barangay Biak-na-Bato, La Castellana, Negros Occidental

I RATIONALE

Mt. Canlaon National Park has been subjected to various efforts of government to rehabilitate and protect its fast diminishing natural resources (flora and faunal resources). Reforestation and forest protection efforts proved to be too costly and its sustainability depend on the financial capability and priority of the government administration. The way these reforestation and forest protection activities are implemented, its effectivity in achieving the goal of National Park rehabilitation and protection is way beyond the rate in which the Park is being exploited, destroyed, plundered and encroached everyday. The government alone, the DENR and other related agencies cannot solve this gigantic problem without the cooperation of the communities within and/or near Mt. Canlaon National Park. However, a suitable community-based program must be formulated to enable these communities realize a source of sustainable livelihood, economic stability and social upliftment out of these National Park Rehabilitation and Protection efforts. This follow-on proposal will capitalize on the gains of the last 3 years in piloting an effective "social fencing" strategy for park management.

II SITUATION

1. Mt Canlaon National Park covers a vast tract of land approximately 24,000 hectares comprising four cities namely Canloan City, La Carlota City, Bago City and San Carlos City and two municipalities namely La Castellana and Murcia. All of which have respective political jurisdiction imaginarily subdivided within the Mt. Canlaon National Park. Also,all of these places have considerable number of constituents who have poached, encroached and squatted within the National Park thru forms of illegal logging, illegal minor forest products gathering, slash and burn farming and other destructive activities.

2. The Province of Negros Occidental needed at least 40% of its land area covered with forest cover. Present statistics showed it has only more or less 5% forest cover left and most of it is located within the Mt. Canlaon National Park and nearby forest reserve.

However, these forest covers are still subjected to various forms of exploitation which if left unchecked and unattended will render the whole province with no forest cover left. A setback in ecological situation is likely to happen if this trend continues. However, present rehabilitation and protection efforts for the National Park is beset by lack of funding, insurgency problems and socially related problems like squatters within National Park and seemingly uncooperative communities within and/or near the National Park.

3. The involvement of communities within and/or near the National Park in the implementation of National Park rehabilitation and protection (as in CANPAB Project) efforts with due realization of their livelihood enhancement and economic sustainability have considerable gain in community-based reforestation and forest protection. The lessons learned from this RRD Project shall serve as a link or bridge in the implementation of National Park rehabilitation and protection efforts whereby these communities will identify as their project or a means of achieving livelihood sustainability and economic stability. Activities within this project shall be continuously implemented to further generate lessons and experiences which can be duplicated in the expansion activities in the administration of National Park.

III PROJECT CONCEPT

1. Upland communities must identify the rehabilitation and protection effort for the National Park as their project whereby they can realize livelihood sustainability, economic sustainability and social upliftment.

2. Communities within and/or near the National Park shall serve as a "mass" or a "core" in the implementation of developmental and protection activities within the National Park.

IV OBJECTIVES

1. To minimize and eventually stop the occurrence of environmentally unsound upland farming practices thru the introduction of agroforestry technologies which can improved food production and enhance livelihood sustainability.

2. To deviate destructive livelihood activities within National Park towards a more sustainable rehabilitative and developmental income/livelihood generating activity.

3. To enhance upland farmer/community capability in the conduct of sustainable community based National Park rehabilitation and production efforts.

4. To achieve a sustainable community based reforestation and forest protection activity.

V TARGET AREAS/BENEFICIARIES

A. Current Project Site

1. Brgy Biaknabato, La Castellana, Negros Occidental - 247.50 ha - 108 participants

B. Expansion Areas

1. Adjoining sitios within Brgy Biaknabato - approximately 80 ha - 20 participants
2. Brgy Cabagnaan, La Castellana, Negros Occidental - 160 ha - 60 participants (to be subjected to actual survey and census)
3. Brgy Mansalanao, La Castellana, Negros Occidental - 120 ha - 57 participants (to be subjected to actual survey and census)
4. Other RRDP activities shall be initially incorporated in other Mt. Canlaon National Park area thru integration in the National Park Administration regular activities.

VI STRATEGIES

A. Current RRDP Site

1. Continuing implementation of started activities to further generate lessons and experiences.
2. Strengthening of farmers organization and strengthening/modification of community based approaches in reforestation, protection and other activities.
3. Identification and/or training of farmer trainors, development of demo farms.

4. Linkages with other government agencies.

5. Initial introduction of community-based approaches learned in current project site to other Mt. Canlaon National Park Areas thru integration of these approaches in National Park Administration (IPAS).
6. Introduction of other livelihood/income generating activities.
7. Intensive training OJTs in community reforestation, cooperative financial management agroforestry and protection activities.
8. Intensive propagation of planting stock materials - forest and fruit tree species.

B. Expansion Areas

1. Community immersion, organization and information dissemination activities.
2. Trainings on agroforestry, leadership, cross-visits and ojts utilizing current site, farmer trainors and current site farmer's farm lot.
3. Integration of new sites in reforestation contracts entered with DENR thru Farmers Federation with current site as their mother unit/headquarters.
4. Hiring of new staff (preferably local) or utilization of regular National Park employees as technicians.
5. Activation/Enlistment of beneficiaries in community-based forest protection.

VII COMPONENT/ACTIVITIES

(These components will be further modified/refined in consonance with activities of IPAS Programs)

A. Environmental Program

1. Community-based Forest Protection
2. Watershed Rehabilitation
3. Roadside/Rural Reforestation
4. Reforestation
5. Erosion Control Measures, SWCs, Agroforestry
6. Planting materials production and dispersal

B. Economic Programs

1. Marketing Network
2. Income Generating Projects
   - o Livestock/poultry production
   - o Work animals dispersal
3. Increased Food Production Scheme
   - o Agroforestry and intercroppings/crop rotation
   - o Orchard Establishment
   - o Coffee production enhancement
   - o Pineapple plantation

C. Social Program

1. ARV Training
2. Training in Agroforestry, Reforestation, Orchard establishment, etc.
3. Leadership and Financial Management Training
4. Organization Strengthening

D. Infrastructure

1. Box Spring
2. Trail Construction
3. Multipurpose pavement
4. Staff house construction

VIII IMPLEMENTATION SCHEME

Project implementation will be focused in the capability building of the farmers organization in running the project operation with or without the funding and with little assistance from the National Government. This can be achieved by organizing and upland farmer organization in every project sites and uniting this small organization into a bigger Farmers Federation who shall represent and oversee the distribution of assistance and the sustainability of started activities in this project sites. Project staff to be hired shall be given priority to local residents and the utilization of farmer trainors shall be emphasized. The old project site shall be the venue of and training cross visits. Its farmer trainors and Federation will tap to accomplish these activities. Regular personnel of DENR will be tapped especially those assigned in the National Park. They will be trained for the initial integration of CANPAB project approaches in the administration of National Parks.

In preparation for the implementation of the local government code, the project implementation will be coordinated to the barangay development council and with the Municipal Planning and Development Office. The programs and activities under the Integrated Protected Area System shall also be considered and its implementation program shall be incorporated in the actual implementation of the project.

IX. Budgetary Requirement

ACTIVITIES/PROGRAM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Personal services (4 staff for old site and 3 staff for each new expannsion sites)	665,600.00	665,600.00	665,600.00	665,600.00	665,600.00	3,328,000.00
Project Administration (MOE)	150,000.00	150,000.00	150,000.00	150,000.00	150,000.00	750,000.00
Trainings, cross visits, meetings and workshops	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00	350,000.00
Field Supplies	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00
Land and Land Improvement (Communal Refo - 60 has each year)	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	3,000,000.00
Infrastructure	240,000.00	240,000.00	240,000.00			720,000.00
Equity Outlay	300,000.00	300,000.00	300,000.00			900,000.00
TOTAL	2,325,600.00	2,325,600.00	2,325,600.00	2,325,600.00	1,785,600.00	10,548,000.00

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MARILOG INTEGRATED LIVELIHOOD PROJECT

I. RATIONALE

This livelihood project will cover four RRDP sitios under the Marilog Agroforestry Project. In these sitios are the following accomplished activities of the RRDP which were done from November 1, 1988 to September 30, 1991

	ACTIVITY	ACCOMPLISHMENT
1.	Farmers training	3,784 md.
2.	SWC	286 ha
3.	Conventional Refo	135 ha
4.	ANR	29 ha
5.	Coop Establishment	2 organizations
6.	Crop production assistance	108 ha
7.	Graded trails	20 kms
8.	Mu. ipurpose building (semi-concrete with GI roof)	1 unit
9.	Goat dispersal	70 head
10.	Nursery Establishment	28 nurs.

A total of 216 upland farmers joined this project and have shown great interest in working together under the management of SeLF. In the words of one farmer, the president of Crossing "S" RRDP farmers association "before the introduction of RRDP in community development fellow farmers were indifferent, uncooperative and preferred to work individually and were very suspicious toward other fellowmen. This has changed with the coming of the Marilog Agroforestry Project".

The series of farmers training where discussions on human values and dignity were incorporated might have been responsible in creating the desired changes in the strengthening the community spirit. RRDP has provided opportunities to improve both the economic and social well-being of the farmers. This project, however, is short to fully gel the community into a strong and self-reliant one. Since it is still an infant, measures have to be applied to ensure that the community matures in the right pacing. Several follow-on activities will be necessary to provide farmers with more opportunities for decision making, conflict management, financial management and project administration.

II. SITUATIONAL ANALYSIS

The RRDP is the first upland development project for Marilog communities. Similar projects followed suit but were not sustained.

The construction of the Davao-Bukidnon road in the early 80's could have provided significant access to and from these communities. Today, mobility of farmers remains limited due to expensive local public transport service. Consequently, delivery of technical services and other assistance becomes difficult.

The level of education is low. Reading materials are not effective means for information dissemination and communication. Trainings are reinforces with a lot of visual aids and hands on training.

Buyers and traders practically dictate prices of farm produce. Very often farmers feel short changed when they sell farm commodities to traders who come to Marilog.

Illegal logging remains a threat to the already depleted forest and the frequent occurrence of grassland fires becomes a growing obstacle to forest rehabilitation.

Holders of certificates of stewardship contracts continue to disregard the regulations of the ISFP.

III PROJECT CONCEPT

The accomplishment of RRDP over the three-year period may become meaningless if these are left now when the community organizations are on its critical stage. Follow-on activities are deemed necessary to be undertaken immediately after the termination of the RRDP project.

IV OBJECTIVES

1. Identify and pursue sustainable development activities in the RRDP sites so that accomplishment of RRDP will be put to maximum utilization by the farmer beneficiaries.

2. Develop marketing and management skills to the organized cooperatives.

3. Provision of the necessary infrastructure that will support the cooperatives agricultural marketing ability.

4. Promotion of off-farm income generating activities that will augment the economic sustainability.

V TARGET BENEFICIARIES

This proposed follow-on project will be implemented in the RRDP sitios of Crossing "S", Balite, West Marahan and Pamuhatan all at Barangay Marilog, Davao City. The target beneficiaries are 200 upland farmers.

VI STRATEGIES

The existence of farmers organization including cooperatives, will be maintained as the foundation in operationalizing the project components. Reorganization with the primary concern of strengthening organizational structure from general membership to officers level will be encouraged.

Since the four sitios have their respective farmers associations, consultation meetings which are normally done at the pre-implementation stage will be anchored with the said associations.

All implementation instructions will be coursed through these farmers organizations.

VII ACTIVITIES

There are four major project activities namely:

1. Infrastructure development for the marketing program

    a. site identification for warehouse and construction
    b. procurement of postharvest facilities

2. Intensification of the on-farm orchard development.

   a. fruit and plantation crop nursery establishment
   b. planting of perennial trees between contour hedgerows
   c. Introduction of rattan and other non-timber forest products
   d. Further training on agricultural technology including livestock raising and management.
   e. Provision of a revolving fund for marketing activities

3. Strengthening of the existing cooperatives

   a. Trainings for coop development.
   b. Linkage building with buyers of agri. commodities.
   c. Linkage building with other agencies for support services.
   d. Development of off-farm livelihood activities

4. Other Activities

   a. Environmental education among elementary school children
   b. Promotion of fuel efficient stoves to lessen fuel demand and collection time.
   c. Establishment of fuel woodlots near farmers homes.

5. Project Management

IX INDICATIVE BUDGET

Project Administration	P	1,500,000.00
Farmer's Assistance		2,000,000.00
Training		1,000,000.00
Infrastructure and Equipment		2,000,000.00
Overhead Operations		300,000.00
TOTAL	P	6,800,000.00

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CAPSULE PLAN FOR THE RRDP FOLLOW-ON PROJECT
Jose Panganiban Agroforestry Project

I BACKGROUND

The RRDP-Jose Panganiban Agroforestry Project (RRDP-JPAP) is one of the pilot projects implemented by DENR (by administration) from 1985 to 1989 covering Cycle I and Cycle II of the Rainfed Resources Development Project (RRDP). Project implementation was extended for two (2) more years - from 1990 to 1991 with a change in management approach from "by administration" to the "contracting mode", which was contracted by the Bicol Upland Resources Development Foundation, Inc. (BURDFI), an offshoot organization of RRDP composed of JPAP staff and farmer cooperators. The extension period will be completed by December 1991.

The project was able to accomplish its objectives - both the ecological, social, and institutional objectives - and a long-term sustainable strategy for upland development seems to be in place. Lessons and experiences generated from the six (6) years of project implementation had been inputted to DENR policies and guidelines for community-based programs such as the ISFP, CFP, and NFP. On a case-to-case basis, the expertise it generated is being tapped by other agencies for their programs such as the cooperative formation of the Land Bank of the Philippines (LBP), the Micro-Lending Program of the Department of Trade and Industry (DTI), and the Farmers' Training Program of UNDP-FAO.

RATIONALE

Major development gaps had been identified during the project assessment workshop conducted by the BURDFI and the community last June, this year. These gaps were also confirmed during the RRDP follow-on workshop held last September 1-3, 1991 at the JPAP training center conducted by the OIDCI and RRDP-CPS. Among the gaps that need to be addressed are the following:

1. Community-based Micro Enterprise Development

   There is a need to develop a micro-enterprise for the community that will process major farm products in the area. This will generate high "value added income" for the farmers who, in the present economic set up, satisfies themselves on the prices dictated by businessmen. This present system stagnates economic development in the rural areas and suppresses the entrepreneural potentials of the people.

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2. Expansion of Project Operation

From the present coverage of 12 barangays in three (3) municipalities of Camarines Norte, the follow-on should now focus on expanding its operation to cover ten of the twelve municipalities in the province. Priority shall be given to those towns with upland areas. With the lessons and experiences learned in the previous years of RRDP, it is expected that the cost to develop a given area would be much cheaper compared to the original cost in RRDP.

This component is necessary to enable a greater number of people in marginalized upland areas to gain economic improvement by self-managing their resources and creating their own economic endeavors. This will also enable the project to establish the critical mass needed so that the development initiatives undertaken shall radiate automatically to other upland areas.

3. Empowering the uplands

Formation of genuine peoples' organization in the uplands is considered a major catalyst in rural development, with no less than our government recognizing its important role in economic growth.

The follow-on program calls for the strengthening of organized peoples' groups in the uplands to equip them with the technical, managerial, and institutional requirements as a start up measure in satisfying the long term goal of internalizing the sustainable strategies and approaches for the uplands - both the environment and its people. An adjunct activity would be the formation of organizations in strategic but unorganized areas.

A special program for the welfare of the Aeta tribe must be part of the general framework of the RRDP follow-on so that this group of people would benefit to the social and economic development now taking place in the rural areas.

II GOAL AND OBJECTIVES

The main goal of the follow-on is to effect people empowerment in the uplands as a measure of internalizing proven strategies and approaches to sustainable development.

The specific objectives of the project deal more on the attainment of specific project components in support to the realization of its long-term benefit (sustainability) both for the people and the environment. These include the following:

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1. To establish/strengthen the institutional, managerial, and technical requirements of people empowerment in the uplands as a start up measure towards self-reliance and sustainability.

2. To establish activities that generate high "value added" income from agricultural products, be setting up "environment-friendly" community-based micro enterprise that will benefit the community and eliminate the present economic system where farmers are tied up to agricultural production while big businessmen raked in huge profits out of the farmers labor.

III METHODOLOGY

Organizational Arrangements

The project shall be implemented via a negotiated contract with the Bicol Upland Resources Development Foundation, Inc. (BURDFI) which will assume the full responsibility in project management and implementation. Project staff shall be composed of the original RRDP staff who have acquired lessons and experiences for the last six years. However, some staff will be recruited to fill in other expert requirements of the project.

Except for the management of enterprises, all project activities shall involve the maximum participation of communities through their respective cooperatives and associations. Enterprise management will take some time before the farmers are actually involve as this is highly technical and an efficient quality control system has to be set in place.

The USAID and DENR shall provide/facilitate funding of the project and shall institute measures to ensure efficient utilization of project resources, supervision and monitoring and evaluation.

A Technical Assistance Team should be hired by USAID/DENR to provide expertise that may be necessary in field operation especially in enterprise development and management, establishing marketing linkages, product quality control, preparation of market feasibility studies, among others.

Project Components

The RRDP follow-on shall have four major components to be implemented for a period of four (4) to five (5) years. These components are as follows:

1. Community-based Enterprise Development (CBED)

With our present economic set up, farmers are limited to the production aspect only. Prices of farm products are dictated by Chinese businessmen and other profit-oriented capitalists, leaving the poor "RRDP farmers in particular and the community in general" at the mercy of these sectors.

As envisioned, the community shall elevate itself to the more complicated aspect of "processing and marketing" as these activities generate high value added income. Thus, eliminates the middlemen and profits will accrue directly to the community.

The Micro Enterprise shall focus on the setting up of small coconut expeller machine that will process coconut into crude oil and copra cake. These will be sold to local factories currently engaged in exportation. Copra cake can also be sold to feed mill as a vital ingredient in the preparation of hog and poultry feeds. Other by-products include coconut vinegar, and coconut wine which may be produced later.

Processing of other farm products (e.g., pineapple processing) will be explored during the project implementation period.

2. People Empowerment

This will involve strengthening of existing farmers' organization in the upland barangays of the different municipalities covered by the project. In case there are barangay without any organization, the project shall facilitate the formation of such.

This component will also include a special program for the cultural minorities (Aetas) in the three municipalities of Camarines Norte.

3. Institutional Support

The follow-on shall involve, as one of its major thrusts, support services for the DENR, DILG, DAR and other concerned agencies implementing community-based projects. Services may include social and technical trainings, and provision of "seed" inputs for the farmers. Trainees will include DENR extensionist, project officers (ISFP, CFP, CBRM) and planning officers at the CENRO, PENRO, and Regional levels. Those from DILG and other agencies shall include the municipal planning and development officers, provincial planners, and selected barangay representatives. Selected NGO representatives will also be encouraged to participate. A special training course for farmer leaders, extensionists, and farmer trainors will be conducted.

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This component is expected to enhance institutionalization of RRDP strategies and approaches (lessons and experiences) within the different agencies of the government. BURDFI shall see to it that the follow-on activities of this project in Camarines Norte are included to the provincial developme :t plan of DILG to facilitate its implementation.

4. Farm Development and Infrastructure Support

This component all include provision of farm inputs to project participants to speed up the adoption of soil and water conservation structures, and other farm development strategies such as multiple cropping, inland aquaculture, among others.

Infrastructure support includes nurseries, multi-purpose pavements, potable water supply facilities, and graded/ access trails, and training facilities and equipment.

Strategies and Approaches

BURDFI shall rely heavily on the proven strategies and approaches, and lessons and experiences generated from the six years of RRDP implementation. Each project component will involve maximum participation of communities as much as possible. Coordination and linkages with other supportive government agencies and non-government organizations will be established (with emphasis to DILG) to facilitate attainment of project objectives. Whenever possible, resources of these agencies will be tapped to support the project.

Farmer trainors and extensionists will be mobilized in the conduct of trainings and implementation of farm development activities such as the introduction of appropriate and sustainable upland farming practices, organizational formation, and others. The training program shall include packages of "seed" support inputs for the community. Each training module will be designed according to the needs of the different areas and in support to the four components of the project. DENR community-based projects will be given priority in accommodating trainees so as to generate the project impact as envisioned.

Marketing linkages will be worked out with private business operators for possible tie up with the enterprise development component. These will include oil refineries in Jose Panganiban, in Camarines Sur, and in Quezon Province. Feedmill factories will also be contacted to generate alternative outlet for other coconut by-products.

The T.A. support is expected to provide services/expertise in field projects "where it is needed and at the time it is most needed".

As much as possible, BURDFI will maintain close coordination with DILG so that project activities are made part of the provincial development program. This will ensure institutionalization of RRDP processes in related major development projects of the province particularly in the agro-industrial sector, environmental rehabilitation, human resource development, and rural development.

IV SUMMARY OF BUDGETARY REQUIREMENTS
RRDP-JPAP Follow-on Plan
Province of Camarines Norte

	PROJECT COMPONENTS	DESCRIPTION	PHYSICAL TARGET	FINANCIAL REQT (P'000)
A.	Community-based Micro-Enterprise Development	This include the setting up of community-based micro-enterprise for the processing of coconut and other major farm products. Coconut shall be processed into crude oil and copra cake to be marketed to local exporters in Camarines Norte, Camarines Sur, and Quezon Province and other nearby outlets. Other Targeted micro processing include pineapple processing, etc. Project funds include cost of coco expeller, warehouse, production building and quality control instruments.	One unit coco expeller complete with infra support and other facilities	2,000
B.	Province-wide Farm Development	This includes the provision of inputs (with appropriate counterparting scheme) to participants from the targeted 10 municipalities of the province. This shall be inputted or made part of the Provincial Development Plan (DILG). This component will include a specialized activity for the cultural minorities (Aetas).	Target area is not less than 1,000 hectares distributed in identified barangays of the different municipalities. Technologies include SWC, multiple cropping, inland aquaculture, crop-livestock integration, etc.	3,500
C.	Community Organizing (Empowering the Uplands)	This component focuses on C.O. works considered vital to the growth and development of target clientele. It includes info drive, social and technical trainings, special activities for the Aetas, etc.	At least five barangay-based associations or cooperative per municipality to be registered with SEC or CDA. These will be linked up to G.O.s and NGOs	1,000

	PROJECT COMPONENTS	DESCRIPTION	PHYSICAL TARGET	FINANCIAL REQT (P'000)
D.	Institutional Support	This shall include coordination and linkaging with government agencies and other NGOs to institutionalize processes, learnings, and experiences of the project to serve as catalyst in the development of other areas, and as a vital input to the planning and project implementation and management of DENR, DILG, etc.	Proven strategies, lessons and experiences have been inputted to various agencies plans and programs.	500
E.	Administrative and Supervision Support	Includes salaries and wages, fringe benefits, insurance of project staff, traveling allowance, office supplies, documentation, etc.	12 project staff for 4 years (with gradual phase out starting year 4)	3,500
F.	Capital Outlay Support	Includes acquisition of office facilities and equipment	Computers, typewriters, cabinets, tables and chairs.	200
G.	Administrative Cost (Fixed Cost) 10%	Management (BURDFI) Overhead Cost		1,070
H.	Contingency (5%)			535
	TOTAL PROJECT COST			12,305

PROPOSAL FOR THREE (3) YEAR FOLLOW-ON ACTIVITIES
RRDP-MAGDUNGAO AGROFORESTRY PROJECT
Passi, Iloilo

I RATIONALE

The Magdungao Agroforestry Project, being the oldest Rainfed Resources Development Project (RRDP) in Region 6, has paved the way in generating lessons, experiences and technologies for economically-viable and sustainable upland environment for the protection, maintenance and development of upland resources. With DENR as lead implementing agency, RRDP was able to promote strong linkages with various Government and Non Government Organizations for support.

Presently, it serves as showcase of a developed upland community where appropriate upland technologies are adopted and the community organization plays a vital role in its sustainability. It is the learning laboratory and training center for both farmers and upland development workers in Region 6. It has organized a strong community organization-the Magdungao Agroforestry Farmers Association, Inc. (MAFAI) which is tasked to train other ISF farmers in Region 6 in collaboration with DENR and Food and Agriculture Organization - Technical Support to Agrarian Reform and Rural Development FAO-TSARRD using farmers as trainors and their farmlot as visual aids.

Upland development is a long and continuing endeavor, such that the project should perpetuate and assume the lead role in pursuing upland development works however in higher levels. The need to explore other options for upland development and to spread these to other upland areas are urgent calls that need to be addressed.

II SITUATION ANALYSIS/PROBLEM ANALYSIS

The ISFP. The Integrated Social Forestry program is an attempt to answer the call of poverty alleviation and empowerment in the uplands. Latest studies show that noble ends for which it was created still remains to be attained. In Region 6 alone, there are 21,750 ISF program participants, 18,218 of which are CSC holders, covering an area is 63,780 hectares distributed regionwide. There are only 200 Community Development Officers and Assistants tasked to attend to this program, 75% of whom are casual/contractual employees and work on a seasonal basis. This is too weak for the delivery of basic components of the program to all sites. Thus prioritization of program implementation is inevitable to maximize manpower and resource utilization.

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Program components such as agroforestry development, farmers training, community organizing, forest farm and livelihood projects are only available to only about 60% of the total number of program participants. The way ISFP s faring, the 8,700 CSC's become potential licences to public land exploitation.

The Techno-transfer. The Magdungao Agroforestry Project serves now as Training Center for ISFP farmers and Social Forestry Practitioners in Region 6. Being the pilot of Agroforestry activities in the region, it has trained and motivated other ISF farmers to adopt its generated technologies and lessons in hillside farming practices and organizational development

Aside from the existing technologies and lessons generated from project implementation, it could not be denied that there are proven researches for upland livelihood program which are published by PCARRD, ERDS and other Research Institution perceived to be applicable and profitable in upland areas. These researches however, hardly reach the upland farmers, the end user; if they do, it stuns the farmer technical and financial incapabilities He normally hesitates for lack of concrete examples. There is therefore the need to train and expose them to actual or concrete examples and provide information right from the successful farmers (farmer to farmer approach). The MAP farmers have recently taken off to adopt this method.

III PROJECT CONCEPT

The Magdungao Agroforestry Project will serve now as Training Center in support to all ISFP's farmer in region 6. Given the ISFP's limited resources to expand its manpower capability, the only way out to save the program in far-flung areas where land tenure program has been introduced is to sponsor farmer's training to be conducted by Magdungao Farmer Trainors. The training program shall be a follow-up of all trainings conducted and attended by farmers: the degree of their development based on the actual lot status and organizational strength shall be the basis of the follow-up. The trainees will then serve as model farmer to other adjacent sites and will form a nucleus of development in their respective sites after they have been trained and equipped with additional, technical know-how and motivation. The Magdungao farmers, organization and other model farmers will continue to explore emerging higher level development through actual research, technology trial, verification and modeling for continuous techno-transfer for sustainable and rapid development in the upland areas.

IV OBJECTIVES

1. To support the implementation of Integrated Social Forestry Program in Region 6.

2. To radially-influenced ISF farmers in the region to adopt RRDP generated technologies, experiences and lessons.

3. To strengthen capabilities and develop more farmer trainors and model site to serve upland farmers in Region 6.

4. To strengthen and tap the project area as a showcase of a developed, economically viable and sustainable upland project for replication.

5. To continue the research component and serve as technology adoption, verification site of others livelihood project in the uplands.

6. To package additional livelihood opportunities and post harvest processing for introduction to other ISF areas.

V TARGET AREAS/BENEFICIARIES

Training. The training beneficiaries will be ISF farmers of Region 6 representing 11 CENROs and 1 ENRDO. Farmer representative farmer representatives from every sites with less access to DENR-ISFP extension services and training program. Five farmers from every CENRO with training potentials. Every CENRO will send 1 CDA/CDO representatives per training schedule to monitor and evaluate the participation of respective farmers.

Technology Verification/Adaptation Trial

Two selected model farmers and trainors of Magdungao Agroforestry Project will be the cooperator to every technology that will be subjected to verification and show-casing.

Existing demonstration farms possessing generated technologies will be maintained and developed by respective cooperators and adaptors.

Two participants will be trained for the operation of feed milling and formulation.

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List of Technologies for showcasing/modeling in support to training center

1. Agriculture
2. Sericulture
3. Passion-fruit growing
4. Guyabano growing
5. Mushroom culture
6. cattle fattening
7. Cut-flower production
8. Feed formulation and processing

VI COMPONENT ACTIVITIES

1. Training Support. Training in support to ISF program (RRDP generated lessons). Different training modules required by training needs analysis (Technical or organizational)

   Training Modules

   1. Responsible Stewardship
   2. Agroforestry Systems and Technology Options for Upland Farms.
   3. Organization and resource development for Upland Communities
   4. Various Upland livelihood projects.
   5. Specialty crops and trees for upland.
   6. Livestock and poultry production in the uplands.

2. Monitoring and Evaluation. Site monitoring and evaluation of farmers accomplishment per project site will be conducted regularly. A group of farmer trainor will be organized together with CDA assigned in the area.

3. Technology Packaging/Showcasing All viable upland technologies will be packaged and show-window or model will be established to project sites and the cooperator will serve as actual trainor. All cost of material and labor will be handled by the project.

4. Process documentation. All activities from the start of the follow-on activities will be documented and processed for reference, future use and development.

5. Technical Assistance. A technical assistance team composed of selected farmers together with CDA'S and CO's will be organized to handle special technical assistance for other farmers.

6. Research and Extension. Recent researches and emerging technology in the uplands will be piloted in the project. (recent research result of ERDS and PCARRD).

7. Linkages and organizational Support. Every ISF site will be encouraged to form organization or cooperatives to answer their development needs and a federation of their association or cooperative will be organized to serve as venue in solving problem and in strengthening its linkages with other government or non-government organization for support

8. Material Support. Every trained farmer and organization will be provided with necessary starter materials to start the technology adoption.

9. Marketing Support System. A technical group composed of farmer leaders and technicians will be organized to study the potential marketing channel systems and strategies for all crops produced in the uplands.

VII STRATEGIES

a) Trainee Selection Criteria. A rigid selection criteria for trainees shall be adopted, taking into account each candidate's integrity, work attitude, ability to communicate and capability to work in groups. The criteria and processes in the selection of trainees will determine the success or failure of the program.

b) Flexible Course Design. Each trainee shall be encouraged to contribute its share in the course. The interest of the majority of the trainees in course selection shall be considered. Subject matter of minority interest shall be taken up on special sessions.

c) The Success of Training Program. Vital support services can only be effectively obtained when the farmer organization can harness the participation of the community.

d) Farmer-Tailored Educational Technologies. More time is decided to hands-on activities where trainor-farmer and trainee-farmer give and take experiences and interests. Processes in adult education should be strictly adhered to. As much as possible the training will be participative, dialogical and experienced-based.

e) Training Site. The site will serve as a bio-laboratory to visualize training lessons form the works of fellow farmers.

f) Post- training Reinforcements:

Provisions for the starter inputs, such as seedlings, seeds, etc. shall be handled out. This will hopefully connect the trainees to the lessons learned in training.

Hand-outs, posters and photos shall be given out. The local farmer trainor shall be encouraged to continuously maintain contacts through friendly letters with their farmer-trainees to strengthen the ties among them.

Return visit by farmer-trainors to trainees' homesites shall be arranged. This will induce peer pressure on trainees to put into practice what are learned in training.

VIII BUDGETARY REQUIREMENT

	A. Personal Services	Monthly Rate	Annual
1.	Salaries and Wages		
	Project Manager	12,000	144,000
	Training Administrator	8,000	96,000
	Comm. Dev't. Specialist	8,000	96,000
	Clerk	5,000	60,000
			₱396,000
2.	Honoraria		
	B. Maintenance and Other Operating Expenses		
1.	Travel		
	Fares and Per Diems		
	- Staff	5,000/mo	60,000
	- Farmers/monitoring team	5,000/mo	60,000
			120,000
2.	Communication	1,000/mo	12,000
3.	Repair & Maintenance	1,000/mo	12,000
4.	Field Supplies		320,000
5.	Other Supplies	1,000/mo	12,000
6.	Other Services		
	Training		
	- Farmers & trainors	5,000/qtr	20,000
	- ISF farmers	78,000/session	939,600
7.	Fuel and Oil	2,000/mo	24,000
8.	Rep Allowance	1,000/mo	12,000
			1,471,600
	C. Capital Outlay		
1.	Feed Milling Equipment		20,000
2.	Improvement of Facilities		40,000
3.	Service Vehicle		300,000
			360,000
	TOTAL		1,831,600

Year 1	1992 -	1,831,966.00
2	1993 -	1,471,996.00
3	1994 -	1,471,996.00
Total 3 Years		4,775,958.00

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VISARES AGROFORESTRY FOLLOW-ON/SUPPORT PLAN

I BACKGROUND

The Visares Agroforestry Project is one of the pilot endeavors of the Rainfed Resources Development Project. Its actual field implementation started in February 1985 and will terminate by the end of 1991. The project has an area of 351 hectares located in Barangay San Joaquin and in Barangay Visares, Capoocan, Leyte. It is about 35 kilometers away from Ormoc City and about 76 kilometers away from Tacloban City. The project is very accessible since the National Highway passes right through it.

The project also started with defined strategies; participative problem and solution identification; consultative planning and implementation of the project activities; involvement of farmer participants in trainings as participants or trainors; and provision of off-farm income by introducing income generating projects. The farmer participants' foundation called the UMACAP was also organized to help the project in attaining its objectives.

A. PROJECT SITUATION

1. Present Status

The Visares Agroforestry Project (VAP) has become foremost location for agroforestry demonstrations, on-the-job trainings and field visits for farmer in the region. The farmer participants foundation (UMACAP - Unyon sa mga Mag-uuma sa Capoocan Foundation, Inc.) was able to host several trainings conducted in the project. The farmer participants generated income by providing catering services and lodging services and act as trainors during trainings.

The UMACAP presently is also supporting its four business ventures/association: The Cooperative Store; the Brgy Power association; the goat raising/production project; and the Rattan Furniture Industry. The Rattan Furniture Industry, eventhough operating, still lacks the necessary facilities and equipment for its effective operation, and the local workers who are also members of the foundation, still lack the quality workmanship to attract quality-conscious buyers. The absence of workable marketing scheme that would give maximum profit to the industry also further aggravated the problem.

Just recently, the UMACAP was granted by the DENR-Region 8 with a negotiated contract for rattan concession operation. The permit was granted to the association to legalize their source of rattan poles to be used in their rattan furniture

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industry. The concession has a total area of 4,512 hectares. However, the foundation lacks the capital or funds for the necessary development of their rattan concession area.

2. Follow-on

The follow-on plan will further strengthen the UMACAP in terms of capitalization. The development of their Rattan Industry will increase the capability of the farmers association to support the farming activities of its farmers members thru employment and some support services. It is foreseen that by succeeding years there will be an increase of membership of the association, so this support plan is necessary to firm up the association. This program will also support the association in developing their rattan concession area as stipulated in their Rattan Cutting Permit.

II OBJECTIVES

The follow-on/support plan will contribute to the improvement of the quality of life of the farmer participants. More specifically, it aims to:

a. increase employment opportunities;
b. increase household income to support farming activities;
c. provide for a more equitable distribution of wealth;
d. promote agro-industrial development in the project area; and
e. serve as strong incentives for UMACAP members to vigorously implement forest conservation, thus enhancing community participation in forest protection program of the government.

III STRATEGIES

To enhance the achievement of the program's objective the following strategies will be adopted:

a. Rattan Plantation Development and Protection

UMACAP will employ the services of its members in the planting of rattan seedlings. It is estimated that a four by four (4m x 4m) spacing will be ideal for rattan, thus having 813 seedlings needed every hectare. The community and the rattan gatherers will be organized to undertake forest protection activities to protect the area from illegal cutters and/or gatherers of forest products including kaingeros in order to preserve the areas

productive sustainability. Protection will form part of the gatherers responsibility in consideration of their authority to gather in the cutting area.

b. Skills Development/Upgrading and Strengthening of Market

All trainings along rattan industry will be conducted to upgrade the skills of the farmer participants engaged in this rattan industry/handicraft. Efforts shall be strengthened to facilitate access to information about investment opportunities and market potentials. Present linkage with the Department of Trade and Industry of Region No. 8 will also be further strengthened.

c. Training Support for ISFP-DENR Region 8 Farmer Participants

UMACAP farmer trainors and extensionist will be mobilized in the conduct of training. Each training module will be designed according to the needs of the DENR community-based projects. The ISFP farmer participants will be given priority in accommodating trainees so as to generate the envisioned project impact. The UMACAP trainors and its staff will utilize its lessons and technologies generated during their 6-year operation under the Rainfed Resources Development Program.

The UMACAP concern for agricultural development and provision of support for its farmer members shall constitute the basic concern of the program in order to boast the productivity of the project area to attain self-sufficiency in staple food and raise farm income.

IV SUMMARY OF BUDGETARY REQUIREMENTS FOR 5-YEAR OPERATION

A.	Rattan Industry and Area Development	₱	3,929,189
B.	Training Support for ISFP Farmer Participants		1,647,500
C.	Project Management		873,400
	TOTAL	₱	6,450,089

PROPOSED FOLLOW-ON PROGRAM OF THE DENR-RRDP SAN MIGUEL AGROFORESTRY PROJECT
San Miguel, Baungon, Bukidnon

RATIONALE

San Miguel Agroforestry Project is a special project of the DENR with financial assistance from USAID under the natural Resources Component. The project is located at San Miguel, Baungon, Bukidnon, approximately 29 kms. from Cagayan de Oro City. It started its operation last October, 1987 and will terminate this coming December, 1991.

After four years of community-based project implementation, it reached a certain stage of development from community organizing to farm development like water conservation, crop production, livestock integration, fruit orchard and tree plantations. These are among other technologies that are widely adapted by our farmer participants.

The result of the present project terminal assessment conducted have indicated the potential gains during the project implementation relevant to the objective of socio-economic and environmental improvement. Lessons learned from actual experience have generated effective strategies and approaches and extension tools vital to support the implementation of other community-based projects. However, it also indicates some critical development gaps that need to be addressed immediately and in medium terms to ensure project sustainable developments.

PROJECT SITUATIONER

Using the community-based implementation, the project was able to mobilize at least 60% of the community residents to participate in the different program activities particularly on short term crop production/on farm trials with soil and water conservation measures, fruit orchard and tree plantations, goat raising and construction of infrastructures support. The latter have generated employment opportunity thru labor and have directly contributed the increase of household income. while on farm technology verification trials result have shown significant crop production yield, however, the adoption process is only on a limited scale due to lack of capital to buy farm inputs and absence of marketing assistance of the farm produce.

The follow-on program is addressed to the following needs:

1. Viable farmers association to enable small farmers to manage the different program activities by themselves.

2. Production assistance for corn and other crops for farmers to increase farm income with the use of appropriate technology and help farmers free themselves from usurious leaders charging high interest rates of farm inputs.

3. Seedling dispersal for the continuous support on the establishment of fruit orchard and tree plantations for farmers to have sustainable alternative long term production income and help to improve the vegetative cover of the area for balance ecology.

4. Livestock production assistance to generate sustainable source of immediate income and working animals to help farmers in their farm development activities.

5. Capital build-up for farmers to continue the project on their own without necessarily depending from outside money lenders for capital even when the project has terminated.

6. Financial assistance in establishing post harvest facilities necessary to facilitate the marketing of farm produce.

7. Extend support to farmer participants of the adjacent ISF projects.

8. Strengthening of the institutional support to the government thru trainings for the ISF Technicians, local government officials and farmer trainors of the ISF model sites.

CONCEPT

The proposed follow-on program is geared toward sustainable development by addressing the development gaps of the existing technologies introduced in the project area. Activities will be implemented using integrated community-based approach whereby each component will be supportive to one another, with the provision of assistance on farm development, establishment of livelihood projects and strengthening of farmers organizations. Potential gains such as experience and expertise of the project staff, strategies and approaches generated will be maximized by extending institutional support thru trainings for ISF Technicians, Local Government Officials and Farmer trainors. Support will also be extended to "less developed ISF project site" as expansion area likewise, giving opportunity for the refinement of the technologies and approaches generated in the project.

GENERAL OBJECTIVES

The general objectives of the project is socio-economic upliftment and empowerment of the farmer participants thru crop production and livelihood assistance, capital build-up cooperative marketing management and proper utilization of natural resources for a balance ecosystem.
Specific Objectives:

1. To assist ten (10) livestock-production cycle, consisting of three (3) years of cattle fattening, to be engaged in by seventy (70) farmers in Barangay San Miguel, Baungon, Bukidnon.

2. To assist six (6) crop-production cycle to be undertaken by at least sixty percent (60%) of the San Miguel community residents.

3. To support ISF projects as expansion areas, in developing an aggregate total of 140 hectares agroforestry farms within three (3) years.

4. To develop 18 core ISF farmer-trainors and train the CDOs and CDAs in Region 10 on agroforestry technologies and techniques.

5. To encourage capital formation among farmers.

6. To strengthen, management capability of farmers organizations in each of the project sites.

7. To establish marketing linkages with GOs, NGOs and private entities.

Target Areas and Participants

1. San Miguel Agroforestry Project - San Miguel, Baungon, Bukidnon

   Seventy (70) farmer participants

2. Mabuhay ISF Project - Mabuhay, Baungon, Bukidnon
   Thirty five (35) farmer participants

3. Farmer trainors of the eighteen (18) ISF model sites of Region 10

4. Region 10 ISF technicians and LGU officials directly involved in the project implementation.

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IMPLEMENTATION STRATEGIES

The follow-on program will be implemented thru the MT.KITANGLAD COMMUNITY DEVELOPMENT FOUNDATION, INC. (MKCDFI), a community-based foundation organized by the project staff and farmer participants of RRDP-San Miguel Agroforestry Project. The foundation will extend its services using the approaches and strategies generated in the project. The existing farmers organization will be strengthened thru formal on the job trainings and educational field trips to enable farmers to participate in project planning, implementation and evaluation. Technical staff will be assigned full time to coordinate and facilitate the implementation process. The core of farmer trainors will serve as viable partner of the foundation utilizing their expertise on technology adoption process and their farms as showcase for upland technologies. The MKCDFI will provide assistance to farmer participants in establishing and strengthening linkages with other government agencies, NGOs and private entities.

PROGRAM COMPONENTS

The program consist of three (3) major components as follows:

1. Sustainable Development Support for San Miguel Agroforestry Project

   a. Strengthening of farmers organization

      Activities include development of technical, financial and management skills of the farmer participants to enable them to participate in project planning, implementation and evaluation thru formal on the job trainings and educational field trips. The program activities will be implemented thru the farmers organization with proper guidance of the project staff.

   b. Production assistance for corn and other crops

      Provision of six thousand (P6,000.00) worth of farm inputs to every farmer participants to develop a maximum of 2 hectares payable after every harvest with interest rates of 5% per month which will be managed by the farmers cooperative as capital build-up. Participants shall be required to follow the appropriate technology identified from the on farm technology verification trials and to adopt the soil and water conservation measures in his farm.

   c. Fruit orchard and tree plantations

      This activity includes establishment of individual fruit orchard and tree plantations for the farmer

participants to have long term production (retirement plan) and help improve the vegetative cover of the area for a balance ecosystem. Assistance will be provided thru seedling dispersal based on their individual farm plans with farmers counterpart on the establishment and maintenance.

d. Cattle fattening

This will serve as alternative source of income. This will be integrated with the crop production component using/utilizing corn and legumes as main ingredients for the supplementary feeds and forage grass planted as contour hedgerows for fodder thru "cut and carry method". The scheme formulated by the farmers and project staff is expected to generate alternative source of income for farmers to buy working animals and raise capital build up for the farmers cooperative. This will in turn provide support for the marketing assistance.

e. Marketing assistance

This will be managed by the farmers cooperative using the capital build up (raised) thru "buy and sell system". Basically, this will facilitate collective marketing of farm products in bulk. Another activity of this component is the linkages wit the NFA, established Cooperatives in Cagayan de Oro City and private entities. The latter will serve as direct buyers thereby eliminating the traditional practice of selling goods to the middle business men who take advantage of controlling the price.

f. Post harvest facilities

Financial assistance is needed for the procurement of post harvest for such as corn sheller and feed/hammer mill to supplement and or in support for the marketing assistance component. These facilities will also facilitate the manufacture of supplementary feed requirements for the cattle fattening activity of the farmers. This will be managed by the Foundation to cater the services for farmers including the expansion area.

2. Institutional Support

a. Technical and extension skills development trainings will be conducted for the ISF technicians ad municipal officials using the proven effective approaches and strategies and lessons learned from the actual project implementation of the RRD Project.

b. Development of farmer trainor for each ISF model site in collaboration with the farmer trainors in the project using their farm development as model and provision of starter seeds/planting materials of the trainees.

c. Development of "Less Developed ISF project" as expansion site.

Support will be extended to the adjacent ISF project using the approaches and strategies generated in the existing RRDP site. Assistance will be provided from community organizing, farm developments, construction of infrastructure support and collective marketing of farm products. This project will also serve as venue for technology modification and refinement for reflection to other ISF projects.

3. Project supervision and monitoring

The MKCDFI will assigned two (2) full time technical staff to each of the major components a project coordination will act as overseer. They will undertake activities such as community organizing, provide technical assistance, facilitate workshops and trainings and identify linkages.

4. Budgetary Requirements

The budgetary requirements for the operation amounted to P6,291,150.00 for three years.

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Budgetary Requirements for Three (3) years
Project Operation CY 1992-1995

Components/Activity	Description	Budgetary Requirement (P)
1. San Miguel Agroforestry Project		
a) Strengthening of Farmers Organizations	Technical, Financial and Management Trainings: for the farmer participants, Workshop and Meetings, Registration of Farmers Coop.	P262,500.00
b) Production Assistance	Provision of farm inputs such as fertilizers, chemicals and starter seeds for the development of 120 hectares of corn and other crops.	360,000.00
c) Fruit Orchard and Tree Plantations/ Multiple Cropping	Assistance for the establishment of additional 100 hectares of Fruit and Forest Tree Plantations thru seedling dispersal.	614,976.00
d) Cattle Fattening	Dispersal of 40 heads of cattle for the first and second year	400,000.00
e) Marketing Assistance	Establishment of Linkages, provision of radio/communication equipments and motorcycle for monitoring of market price.	100,000.00
f) Post Harvest Facilities	Assistance for the installation of Corn-sheller, feed mill and Multi-purpose Building.	200,000.00
Sub-total		P1,937,476.00
2. Institutional Support	Trainings and farm, visits, provision of starter seeds.	2,065,000.00
3. Development of Expansion Area	Community Organizing, Farm Developments and Infrastructure Support	1,468,090.00
4. Project Monitoring and Supervision	Personal Services and Maintenance and other Operating Expenses	820,584.00
GRAND TOTAL		P6,291,150.00

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CAPSULE PLAN FOR PROPOSED FOLLOW ON-ACTIVITIES OF RRDP KIBLAWAN AGROFORESTRY PROJECT

RATIONALE

Upland development has always been one of the major concerns of the Department of Environment and Natural Resources . It is along this thrust wherein Kiblawan Agroforestry Project of the Rainfed Resource Development Project (RRDP) was implemented in August 1991. After three (3) years of implementation, the staff and the farmer cooperators. have accumulated experiences and lessons learned which will serve as reliable references for development workers.

At present, a pool of human resources equipped with social and technical capabilities is on hand. Biophysical improvement is visible within the project site and farmers learn how to eventually increase their production. The project has reached the stage of being (Fig. 1) accepted by the majority which further attract farmers in the neighboring site. Sustainability of these gains must be placed in their proper perspective. Hence follow-on activities are identified to continue and support what has been started which the organized farmers shall undertake beyond RRDP.

A continuity plan is therefore conceptualized in order to maintain such level of acceptance,as a tool to cover a wider area to be developed, serve more of our less fortunate upland brothers and reach a higher level of development through the existing human and physical resources.

SITUATION/PROBLEM ANALYSIS

The result of the baseline survey conducted by the staff in 1989 showed two major problems which most farmers in the area have been experiencing for quite a time. Low income and low corn production hinder them to enjoy some basic human needs that which breed poverty in the hinterlands. It is in this context wherein the project introduced the integrated contour hedgerows- organic fertilizer technology through on farm trials which resulted to a remarkable increase in the number of cooperators.

Increased in production was obtained by early adaptors. However, they and other farmers now encounter the problem of low prices and thus the need of post harvest facilities surfaced. No matter how good and bountiful their harvest maybe, if market of their products is not considered, increase in farmers income is left unattained.

Aside from corn production, the need to engage in medium term agricultural development activities through diversified farming was identified to further increase their income.Farmers from adjacent areas now aware of the benefits enjoyed by the participants from the assistance extended and they hope to avail the same from DENR through similar projects such as RRDP. What will happen to this accelerating enthusiasm if not immediately catered to?

The experience of the farmers and the staff are the project's assets which have to be proliferated, shared and institutionalized. On the other hand, REgion XI has so many farmer clienteles and development workers who need to be oriented and trained in such aspects. Shall these acquired capabilities be put to drain?

PROJECT CONCEPT

A follow on project is conceptualized wherein the farmer cooperators will be trained in small scale enterprise basically in corn and other agricultural products. They will be given credit assistance in corn production. Post harvest facilities shall be installed to facilitate post harvest activities and marketing of their products. The existing farmer cooperative shall be tapped to man this activity.

The early adaptors of RRDP technologies need to strengthen their technical capabilities which can easily be realized through a farmer to farmer practice in an expansion area. Farmer trainors of the project will compose the pool of resource speakers in trainings to be conducted depending on the line of expertise needed.

A livelihood program through achuete and cassava production shall be introduced to provide additional income and at the same time encourage diversified farming.

OBJECTIVES

General:

1. To alleviate poverty in the uplands using proven and tested agroforestry technologies.

Specific:

1. To develop 500 has. of upland areas in adjacent barangays for the next five (5) years.

2. To increase income of 500 upland farmers by at least 20% by the end of 1997.

3. To provide an on-the-job training in agricultural entrepreneurship (production and marketing) for 500 upland farmers.

4. To harness skills of project farmer trainors through the conduct of trainings, farm visits for at least 1000 ISF/NFF farmers and or other interested clienteles.

5. To provide other source of income to farmers through achuete and cassava production.

TARGET AREAS AND BENEFICIARIES

The target areas for the expansion of the project are Brgy. Kilusan and Bagong Negros all of Kiblawan, Davao del Sur located adjacent to the existing RRDP-Kiblawan Agroforestry project. It aims to assist a total of 500 farmers including those late adaptors within the site.

However, training activities include CSC holders and development workers in Region XI and other regions. Target beneficiaries for the RRDP expansion or CFP target participants, students and other interested individuals and/or groups.

STRATEGIES

1. Farmer trainors must take an active participation in planning and operation of the training center.

2. Trainings to be conducted should basically be more of a hands-on training.

3. Provide credit facilities through the existing multi purpose cooperative and charge interest for administrative cost and revolve the funds collected for subsequent activities.

4. Strengthen marketing linkages on basic commodities such as corn, peanuts, achuete, cassava, etc.

5. Strengthen linkages with DENR, local government officials, DA, DPWH, NGO's and other people's organization.

6. Utilize experiences and/lessons learned in the expansion of new areas.

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COMPONENTS/ACTIVITIES

1. Community Organizing on the Expansion Site

Existing farmer leaders shall be tapped to socially prepare/orient the target beneficiaries in the expansion sites. Star communicators shall also be identified to accelerate information dissemination. People's participation from the very start shall be given emphasis.

2. Entrepreneurial/Capital Build Up Activity

Credit facilities in the acquisition of farm inputs must encompass a greater number of farmers which will eventually become a capital build up in itself after such loans be collected. The staff and farmers shall undergo a training on marketing and trading of products.

3. Training Component

Target participants from the expansion sites and ISF farmers and other interested persons shall undergo a 3 month hands-on training at the existing training center.

4. Livelihood and other Income Generating projects

Includes achuete and cassava production aside from corn production to increase income.

IMPLEMENTING SCHEME

With the assumption that this project be funded, it will be managed by the Kiblawan Rural Development Foundation, Inc.- a non stock, non profit organization composed of farmers and civic minded/cause oriented citizens.

The foundation must have the following personnel, to wit:

Expansion:	2 Farmer Extension Workers
Training :	1 Manager
	1 Training Coordinator
	1 Training Aide
	9 Farmer Trainors
Marketing:	1 Liaison Officer
	1 Market Supervisor

The three (3) major components must be implemented with the active involvement of farmers who have gained lessons in RRDP.

Summary of Budgetary Requirements
RRDP-KAP Follow-on Plan
Kiblawan, Davao del Sur

	PROJECT COMPONENTS	DESCRIPTION	PHYSICAL TARGET	FINANCIAL REQT (P'000)
A.	Community Organizing/ Organizational Strengthening	Farmers in the expansion sites will be organized through the participation of RRDP Farmer leaders along with the extension workers. This include information drive, farm visits, barangay assemblies and community gatherings; leadership and technical trainings. The RRDP-KAP organized farmers shall take the lead in the dissemination of tested technologies	Reach out to 500 upland dwellers in Barangays Kisulan and Bagong Negros, all of Kiblawan, Davao del Sur Maintain and develop the capabilities of 143 farmer-cooperators of RRDP-KAP in convincing more farmers both within and outside the project's administrative jurisdiction.	500.00
B.	Community-based Marketing Component	The project shall provide credit facilities on corn production and install post harvest facilities required to ensure better market prices of farm products. The multi-purpose cooperative affiliated to the Foundation shall serve as a conduit in undertaking this activity. This also include training in small-scale business enterprises through linkages with experienced NGOs like PBSP	Provide services to 143 early adaptors of RRDP farm technologies, 500 targeted farmer-beneficiaries at expansion areas and farmer recommended creditor-members of the existing cooperative	2,500.00
C.	Training and Institutional Support	With the existing facilities and proven technologies, the site will serve as a training center for community-based upland and rural development projects. The farmer-trainors shall get involve in the actual hands-on trainings to be conducted. Linkages with government and non-government agencies shall be strengthened to institutionalize the gains of the project which will serve as a "living reference" for other on-going projects and those which are to be implemented yet.	A training curriculum must be designed to cater the training needs of not less than 1000 farmers and development workers of both government and non-government organizations. Additional training facilities shall be procured/constructed to cater a wider scope of clienteles.	1,500.00

	PROJECT COMPONENTS	DESCRIPTION	PHYSICAL TARGET	FINANCIAL REQT (P'000)
D.	Livelihood Support	This include the provision of starter materials and technical assistance on achuete and cassava production to enhance other sources of livelihood first and foremost to the early adaptors and later to the new group of cooperators. Marketing linkages of such products are presently worked-out to ensure that such venture is income generating. The market of this produce shall be coursed thru the existing cooperative	To develop 100 hectares for achuete and 100 hectares for cassava production	500.00
E.	Administrative and Supervision Support	Includes personnel services and maintenance and other operating expenses for project implementation	A total of seven (7) staff for 4 years shall be employed	1,500.00
F.	Capital Outlay Support	Procurement of necessary office equipment and facilities	Office tables, chairs, computers shall be procured	500.00
G.	Administrative Cost (10%)	Overhead Cost for Kiblawan Rural Development Foundation, Inc.		700.00
H.	Contingency (5%)			350.00
	TOTAL PROJECT COST			8,050.00

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FOLLOW-ON PROPOSAL OF THE RRDP-UPI AGROFORESTRY PROJECT
P.C. Dolores, Upi Maguindanao

I BACKGROUND

Upi Agroforestry Project commenced its field activities last October 1988. It is a special project under the Rainfed Resources Development Project implemented by the Department of Environment and Natural Resources in Region 12, Cotabato City. The project with a three (3) years duration of implementation will terminate its grant fund source from USAID this coming September 31, 1991 and the GOP counterpart on December 31, 1991. The site covers an area of approximately 700 hectares located in P.C. Dolores, Damgao and Bayabas in Upi Maguindanao. It has a target of about 230 potential participants in which 90% out of it belongs to the ethnic group called "teruray".

The project on its termination stage has almost accomplished the planned activities programmed for the whole duration of the project. On the social, farm development, organizing and institutional components, the project has generated some learnings and experiences which is duplicable and applicable to some other related upland development projects, especially on areas with cultural minority beneficiaries which regarded as the group with less access to developments.

II RATIONALE/PROBLEM ANALYSIS

In an upland community-based development project dealing with cultural minorities, the period of three (3) years is a very infant stage and impossible for them to feel that they are already developed and attain the level of sustainability. Some aspect might attain the level of development but it is not as what is totally expected. The RRDP Upi agroforestry project is experiencing similar problems. There are a lot of things and work to be done to accelerate the level of sustainability. The conduct of site interviews by the management audit team to farmers and the result of the Rapid Rural Appraisal conducted by the project staff with farmer representative, showed a wide gap of development that needs to be answered on the follow on program. Among the prioritized activities that needs to be done are as follows:

1. Farm Development

   Considering the level of adoption of the technology by the native people or cultural minority group some of the areas needs to be further developed through a protective-

productive approach of technology which was already been proven effective by the former RRDP staff. The application of this approach should not only be limited to the project area; it should also be expanded and replicated to similar sites and beneficiaries.

2. Community-based Enterprise

Just like in some other upland areas, one of the main problems is on the marketability of their farm produce and its prices. In most cases, prices are dictated by the opportunistic businessmen who provide inputs with a high payback interest rates and put upland farmers into critical pressures. In this case, there is really an urgent need for farmer to operationalize a community-based enterprise that will answer this common problem.

3. Organizing and Training

The need for the farmer to be empowered is through the process of organization of association and cooperatives. The establishment of the community-based enterprise will not be fully attained unless a genuine organization should be put-up and become functional.

There is also a need for additional learnings both technical, managerial and financial for the farmers.

III GOALS AND OBJECTIVES

Generally, the follow-on activities is designed to effect the upland people empowerment on environmentally profitable and sustainable manner. Specifically it shall aim to attain the following;

1. To put up a community-based enterprise that will generate more income for the community and the farmer;
2. To strengthen expand and replicate farm development activities through the application of the technically sound and positively proven RRDP approach; and
3. To organize additional associations and cooperatives trained on upland project implementation.

IV METHODOLOGY

Project Administration

The project shall be implemented through a negotiated contract with the Sustainable Upland Resources Development Association (SURDA) and local organization with capability to implement the project which is composed of both farmer and RRDP staff and farmers. The SURDA will assume full responsibility in project management and implementation.

A technical assistance should be hired to provide additional expertise that may be necessary in field operation especially in the enterprise development and management, establishing marketing linkages, product quality control and preparation of market feasibility study.

V PROJECT COMPONENTS

A. Farm Development

The project will implement protective-productive strategy of developing the hilly farm areas through the adoption of the Soil Stabilization Technique (SST) combined with Soil Enrichment Technique (SET). This include the provision of farm inputs such as hedgerows seeds, chemicals, supplies and to ensure the speedy adoption of the technology for sustainable development.

Technical assistance should also be provided to the farmer on crop production and farm development activities.

B. Community-based Enterprise

The farmer in the project is dependent on corn products as their source of income. In most cases, however, the prices are controlled by middlemen. To remedy the situation of the farmers, the community itself shall operationalize an enterprise that will sell their own products with a fair and considerable price instead of selling it to the opportunistic capitalists. The enterprise, however, should provide the farmer with inputs through its credit scheme component so that they will not rely on the inputs of middlemen with high interest rates. Sheller machine, dryer, and hauler should also be provided and a stock house (bodega) to ensure good quality products. A corn milling machine should also be provided for a need to convert or process corn products farmers consumption and for market which has a greater price.

With this strategy of enterprise development, the community should have a link with the traders which demand high prices or direct to the exporters.

C. Infrastructure

The provision of multipurpose pavements, product stock house, access roads, nurseries, water system, training house and facilities and equipment are necessary.

D. Organizing

To attain the main purpose of people empowerment, the farmer organization will be strengthened to become viably capable of sustaining the projects. Formation of additional association and cooperative shall be assisted and facilitated.

E. Institutional

Support and involvement for the success of the project shall be solicited to other development oriented agencies implementing community-based project.

F. Training

The continuous training of farmer on the most important aspects such as technical, managerial and financial shall always be given consideration.

INDICATIVE BUDGETARY REQUIREMENTS

PROJECT COMPONENTS	DESCRIPTION	TARGET	FINANCIAL REQUIREMENT (P000)
A. Farm Development	- This component shall include the provision and farm inputs to the tagetted 250 farmer beneficiaries including on the expanders and replicated areas.	- 250 farmers with an area of approximately 700 hectares	3,000,000.00
B. Community-Based Enterprise	- This is the setting-up of the community - based enterprise so that the farmer should not rely on the opportunities capitalist. This include a buy and sell strategy with a complete facilities.	2 unit travelling shelling machine	200,000.00
		1 unit truck hauler	800,000.00
		1 unit stockhouse (bodega)	500,000.00
		1 unit weighing scale	12,000.00
		1 unit dryer	
		1 unit corn milling machine	120,000.00
		5 pcs tent	15,000.00
		1 unit testing kit	5,000.00
		1 unit generator	60,000.00
		2 units communication facilities	50,000.00
C. Infrastructure	- This include other facilities aside from stock house and multi purpose pavement	3 unit box spring with linkages	100,000.00
		4 kilometer road	
		1 unit training house	30,000.00
		2 unit nursery budding	30,000.00
D. Organizing	- This activity is on oogoing with association cooperations which includes info dessimination etc.	1 expanded areas 1 replicated areas 2 additional association	1,000,000.00
E. Institutional Supports	- This includes coordination and linkaging		500,000.00

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PROJECT COMPONENTS	DESCRIPTION	TARGET	FINANCIAL REQUIREMENT (P000)
F. Trainings	- This is for the beneficiaries to be trained to be capable os sustaining projects	200 participants	200,000.00
G. Administrative and Supervision Supports	- Include salaries and wages, fringe benefits, insurance of project staff, traveling expenses office suppies, documentation, etc.	12 project staff for 4 years	200,000.00
H. Capital Outlay Support	- Include acquisition of office facilities	computers, typewriters, cabinet, tables and chairs	200,000.00
I. Administrative Cost (Fixed Cost) 10%	- Management (SURDA) Overhead Cost		1,053,000.30
J. Contingency 5%	-		403,000.765
TOTAL			8,479,000.065

CAPSULE PLAN FOR COSINA AGROFORESTRY PROJECT
Cosina, Talakag, Bukidnon

Proponent: DENR in collaboration with
Central Mindanao University (CMU) and
Xavier University (XU)

RATIONALE/PROJECT SITUATIONER

The COSINA Agroforestry Project started in 1987 and has been operating in a dominant cultural community group. The major tribes in the area are the Talaandig (60%), Higaonon (20%), Bukidnon (10%) and migrant settlers dominantly Christians (10%). In the implementation of the project during the last 3 years it has been beset by management difficulties and the problematic cultural uniqueness of the project area. Management problem concerns the unity of the staff while cultural uniqueness of the area involves working habit of the Talaandig (they only work from 6:00 A.M. - 10:00 A.M.), tribal conflicts, social problems and uncontrolled forest exploitation.

Inspite of these difficulties, the project have gained headway in terms of project acceptance. It has to deal directly with the issues of ancestral land claims, slow technology adoption rate of cultural groups and social conflicts. It is for this reason that this community-based agroforestry project should be developed as a policy cum implementation pilot area to seek for innovative methods of establishing successfully a CBRM project in cultural community groups. Another interesting area for analysis is the rapid incorporation of the community into a dominantly cash-oriented economy. It is also in this project area where indigenous technology of sunflower contour hedgerows are widely adopted.

CONCEPT

The proposed follow-on project is geared towards the piloting of policy research cum development activities centered around the issues of;

1) Ancestral Land Claim,
2) Tenurial Instrument effectivity,
3) Impacts of the cash-oriented economy on traditional culture, and
4) Indigenous technology.

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GENERAL OBJECTIVES

1) To pilot a research policy study cum development project implementation.

2) Determine what proper tenurial instruments and policy is appropriate for cultural community groups.

3) Conduct studies on the impact of cash-oriented economy on traditional culture including indigenous knowledge.

4) Formulate appropriate policy support for CBRM in dominantly cultural community groups.

IMPLEMENTATION STRATEGIES

The follow-on project will be implemented jointly by DENR-ISFP and a research group consisting of a consortium from CMU and Xavier University who can conduct tenurial studies, process documentation and policy research. Specifically the interdisciplinary team of CMU-Xavier University who were involved in the Upland Development Pilot program (MUSUAN) can be tapped for this purpose. it is proposed that this follow-on be endorsed to NRMP Policy and Implementation Support Program.

Budgetary Requirements (for 3 years)

Components/Activities	Description	Budgetary Requirement (P)
1. Development Program		
a. Production Assistance	Provision of marketing support Farmers Training, Seed Material and other Starter Inputs especially for Hot Pepper and Pineapple plantation	800,000
b. Strengthening of Farmers Organization	Technical, financial and management training, cross visits, formation of Cooperatives	500,000
c. Post Harvest Facilities	Fruit Processing, Drying and Post Harvest Handling	750,000
d. Institutional Support	Developing Linkages with Line Agencies and other Institutions	500,000
2. Research Study		
a. Tenurial Study	Contracted to Research Institution sin the Region	700,000
b. Impacts of Cash-Oriented Economy on Traditional Culture	-do-	500,000
c. Organizational Structure and Its Relation to Decision-making	-do-	500,000
TOTAL		4,250,000

FOLLOW-ON PROJECT PROPOSAL
FOR SOGOD AGROFORESTRY DEVELOPMENT PROJECT

I RATIONALE

The development efforts initiated under the CARE/DENR-RRDP agroforestry project in the upland barangays of Sogod, province of Cebu ushered significant changes to both the people and the physical conditions in the area. Notable among those changes were the increased level of awareness of the participants on their responsibilities to their own upliftment resulting to increased individual and community enthusiasm which enabled them to exert concerted efforts in adopting ecologically sound land use systems, growing of multi-purpose tree species, construction of soil and water conservation structures and an aggregate of 15-km graded trail and the water development projects.

About one hundred eighty-four (184) participants were organized and a certain level of cohesiveness was also developed among the groups and the entire association. They had also acquired leadership skills which mobilized the groups and technical skills for their farmlot planning and development.

CARE, the direct implementing organization, had likewise expanded its capacity to implement a community-based natural resource management project. Its project staff had also acquired and developed the necessary technical skills for effective project implementation.

II SITUATION/PROBLEMS ANALYSIS

While the development activities in the area were encouraging, they fell short in creating a concrete and considerable impacts to the ecological and socio-economic conditions of the participants and the entire community. A number of farmers in the area still practice ecologically destructive farming activities like slash and burn for corn production. Among the participants, the effectivity of the applied technologies needs to be assessed and sustained. The farmers' ability to transfer skills and technology to others also need to be supported adequately.

Likewise, the area planted to trees need to be expanded to increase the economic potential and to hasten environmental improvements. Farmers also need to be trained on tree maintenance. A technology on tree-based farming also need to be introduced and applied.

For short term economic improvements, the present cattle fattening needs to be expanded to reach out to a greater number of participants. While the diminishing supply of cattle stocks for fattening is widely felt, a breeding activity should also

be integrated with its expansion. Feasibility of other livestock income generating activity will also be looked into.

Moreover, vegetable production in the gardens were limited for home consumption. Increasing production for commercial market were seen to provide additional source of income however, there is a need to install postharvest facilities, marketing/trading and financial support for these agricultural products.

The existing infrastructure projects like the multipurpose building, graded trails and the water resources structures needs to be maintained. New infrastructure to support expanding needs have to be added.

To be able to mobilize and effectively coordinate the groups and their activities, the association and the clusters need more strengthening and skills both technical and management.

III PROJECT CONCEPT

The Sogod Agroforestry Project will be extended and pursued in the next five (5) years. A number of its components will be retained. Taking out the accomplishments made in the last 3 years will serve as the baseline for this five-year development plan.

The salient feature of this project is that the farmers' association (SOMAKA), will be the main implementor of the follow-on project activities while CARE and the partner NGO (UGMAD) will provide technical, training and financial assistance. With the guidance of the two NGOs, the SOMAKA will pursue their expansion plans initiated prior to the termination of the project (Sept. 1991). Linkage and networking to existing outside institutions will be enhanced. The association will develop its own technicians and extension systems. The project site may serve as a training site for other farmers both from within and from other areas.

Particularly, the association's activities that will be linked with are the expansion of the income generating activities and community support services. Development of local technicians will likewise be linked with other agencies. Educational tours to other project sites will be another activity.

Farmlots and farm forests activities will be developed utilizing the association's and the members' own resources and capabilities.

CARE and its partner NGO will provide technical support on community organizing, extension for farmlot development and farm forestry along with the necessary leadership and technical skills training.

DENR will primarily assist in the preparation of documents and issuance of CSCs as well as on technical guidance in the proper

utilization of natural resources according to department policies. Other agencies like DA, DSWD, DOH, DECS, DTI and the local government will also be tapped.

The approach will be participatory in all phases of the project cycle. A phase out plan will also be integrated in this project.

IV. STATEMENT OF PROJECT GOALS

Final Goal

At the end of fifth year the upland farmers of Sogod should be able to attain sustainable increase in income through institutional strengthening and the promotion of a tree based regenerative land use management practices, the introduction of new livelihood opportunities, and the upgrading of local infrastructures.

Intermediate Goals

1. To strengthen the Sogoranong Mag-uumad sa Kabukiran (SOMAKA) and the clusters to effectively mobilize internal and external resources to address community problems.

2. To motivate farmers in the project area through technical training to adopt and maintain sustainable land use management practices.

3. To increase the income of the participants through the promotion of economically viable and environmentally sound income generation projects.

4. To maintain community infrastructures such as graded trails, water resources, multipurpose building and post-harvest facilities.

V. TARGET AREAS/PROJECT PARTICIPANTS

The Sogod project site covers 1,918 hectares located within 6,748 ha. Forest Management Bureau (FMB) Reserve. The project area includes portions of four barangays of the municipality of Sogod: Ampungo 1; Cabalawan; Pansoy; and Cabangahan. Potential number of participants is approximately 350 families living in the area while a total of actual farmer participants who have been active members of the association and in the project totals to 184 families. The households are sparsely located in 10 organized clusters which forms the SOMAKA.

VI. STRATEGIES

An integrated development program strategy will address the problems and issues which upland farmers/families in the project area face. This will be accomplished by combining a strong human resource development (institution building and community organizing), introduction of appropriate upland technologies and ecologically sound crop/livestock income generating projects.

1. Long range - rehabilitation of the upland agricultural resource base, land use and tenurial security;

2. Medium range - soil and water conservation;

3. Short range - food production, nutrition and income generation.

CARE will implement this project in collaboration with DENR and local partner organization with whom CARE has developed working relationships over the years. With the established linkage with the local government and other government agencies, the provision of public services will be coordinated within the area.

VII. COMPONENTS/ACTIVITIES

Major components of the project is divided into five (5) categories. These category divisions were a product of the Rural Settlement Development Planning (RSDP) conducted with the SOMAKA aimed to ensure the sustainability of the initial development efforts which were started three years ago. These are:

1. Organizational Development

One of the critical area to consider is the organization that would maintain the SOGOD community development. SOMAKA, having been organized and being the community structure will act as the implementor of this follow-on project since they were found to be the most appropriate tool to respond to the needs of the members and the community as a whole.

This component will be divided into sub-components which include the continuous upgrading of skills in specific areas i,e, project management, planning financial management organizational management through the provision of management and technical skills training and educational tours for SOMAKA farmers and project staff; the development of community organizing volunteers and local extensionist will be installed; Linkage and networking will be established to facilitate resource accessing and community resource mobilization; Planning, implementation and evaluation skills will be developed and institutionalize the system with SOMAKA; Finally, they will

seek its legal personality by registering itself with the Securities and Exchange Commission.

2. Farmlot/Agricultural Development

This refers to the land-based economic activities of the project. Among the concerns that should be considered would be what development should the farmers want to effect in their farms. This will includes the tree farming, appropriate technology such as soil and water conservation, soil rehabilitation, crop and livestock integration, and Bio-Intensive Gardening and other inputs necessary for agricultural production by the farmers such as farm inputs, marketing assistance which will increase production and income. Initial efforts have been conducted for possible linkage with Land Bank of the Philippines and the Department of Agriculture to support the IGPs started by UGMAD.

3. Non-Land Based Activities

This refers to the economic aspect of SOMAKA, however, it focuses more on the economic activities which do not require the use of land such as marketing and trading support for agricultural products, handicrafts, food processing and other cottage industries.

4. Community Facilities

The necessity of the facility should be considered properly. Most of these would be the maintenance of the existing structures and facilities the project has started. These include the maintenance of graded trails, water facilities, farm tools, nurseries and the multi-purpose building. Post-harvest facilities like warehouse, sun drying pavements, livestock houses, training center, demo farm and other farm equipment will be added. Linkage with the Department of Health, Department of Social Welfare and Development had been started while the project will find tie-ups with other agencies.

5. Land Tenure

Refers to the mode of land ownership which can be individual, communal or a combination of both. This will update CARE and the farmer participants the status of their Certificate of Stewardship Contracts (CSCs), procedures and problems that dealy the fast-tracking of the awarding of CSC to qualified participants. In close coordination with DENR, qualified claimants who were not awarded with the CSC will be helped out. A and D land claims will be threshed out under the CARP program.

VIII. IMPLEMENTING SCHEME

1. Pre-Implementation:

Covering the period from October to December 1991, activities in this period will include refinements with SOMAKA on their project plans relative to the identified problems and solutions. A memorandum of agreement detailing the roles and expectations between SOMAKA and CARE will be accomplished during this period. SOMAKA will refine their five year plan at this time.

CARE will integrate this project to its regular Economic Development Program thereby providing the project full management support. It will directly field two (2) of its technical staff to facilitate SOMAKA in the preparation of action plan as well as to assist the clusters in their activities.

2. Implementation

This will cover the period from January 1992 to September 1996. During this period, the project staff will be involved in the following:

a. Facilitate SOMAKA and clusters to work out their action plans;

b. Provide technical assistance in technology transfer, monitoring and evaluation;

c. Facilitate, assist and/or conduct necessary leadership, management and technical skills training;

d. Assist SOMAKA in project management and in tapping other resources;

e. Deliver other services as committed by CARE and UGMAD to SOMAKA.

On the other hand, SOMAKA is expected to do the following:

a. Prepare yearly cluster and association action plans;

b. Implement plans on organizational development, farmlot development, non-land based activities, community facilities and land tenure;

c. Conduct in coordination with project staff the following:

c.1. Baseline survey covering socio-economic, demography, land use and existing technologies. Soil survey will also be conducted;

c.2. Leadership and technical skills training integrated with on-the-job training;

c.3. Educational tours and local cross farm visits.

d. Supervise over-all project implementation in regular consultation with project staff. IGP and other cluster activities will also be among those supervised by SOMAKA.

e. Develop a community organizing volunteers (COVs) and local trainors who will sustain the organizing activities in the area.

f. Develop own extension system and local technicians;

g. Develop a mini training center/demo farm to train farmers from within SOMAKA and from other areas.

h. Conduct regular monitoring and evaluation of activities and applied technologies;

i. Conduct regular organizational meetings;

j. Access and mobilize other resources;

k. Conduct mid-term, and summative, evaluations together with CARE, and UGMAD.

3. Phase-out

This stage will start on the fourth towards the fifth year. During this time, the project staff will reduce their technical assistance to SOMAKA who will then be ready to manage/supervise the entire project implementation. Local extension will be fully delegated to local extensionists but with regular consultation with staff.

Activities to be conducted during this period will be project assessment and replanning, linkaging to other resources, and summative evaluation.

4. Post Project

Conduct impact evaluation with involvement from CARE, UGMAD, SOMAKA another identified agency one year after project termination.

IX. BUDGETARY REQUIREMENTS

BUDGET LINE ITEMS	INDIVIDUAL FARMER'S LEVEL	SOMAKA COMMUNAL FARM	TOTAL
I. EXISTING ECOLOGY FARMS			
A. Existing Ecology Farms Maintenance	2,640,000	48,000	2,688,000
B. Animal Integration			
1. Swine and Cattle Production	747,960	252,270	1,000,230
SUB-TOTAL	3,387,960	300,270	3,688,230
II. FOLLOW-ON CAPITAL OUTLAYS FOR FACILITIES TOOLS AND EQUIPMENT			
A. 1. Animal Sheds (including maintenance)	206,235		206,235
2. Farm Tools		46,200	46,200
B. Infrastructure and other Support Expansion		866,795	866,795
C. SOMAKA Office Equipment/Vehicles		720,360	720,360
SUB-TOTAL	206,235	1,633,355	1,839,590

BUDGET LINE ITEMS	INDIVIDUAL FARMER'S LEVEL	SOMAKA COMMUNAL FARM	TOTAL
III. PERSONNEL SERVICES			
1. On-Site Personnel	1,061,559	2,624,809	3,686,368
2. Staff Benefits			
* 13th Month	59,717	65,689	125,406
* SS/MC/EC	11,519	11,519	23,038
* Insurance	73,205	80,526	153,731
* Severance/Retirement	71,706	100,050	171,756
SUB-TOTAL	1,277,706	2,882,593	4,160,299
IV. OPERATING EXPENSES			
1. Supplies and Materials		10,059	10,059
2. Printed Forms		16,659	16,659
3. Transportation		62,474	62,474
4. Gasoline and Oil		208,749	208,749
5. Repair and Maintenance		58,883	58,883
6. Meetings and Conferences		21,125	21,125
7. Representation		7,042	7,042
8. Project Monitoring		24,737	24,737
9. Annual Audit Fee		24,000	24,000
10. SSS Contributions (Communal Farm Aides)		33,984	33,984
11. Sanitation		2,981	2,981
12. Retainers/Professional Fees			
* Veterinarian		17,885	17,885
* Plant Pathologist		17,885	17,885
SUB-TOTAL		506,463	506,463

BUDGET LINE ITEMS	INDIVIDUAL FARMER'S LEVEL	SOMAKA COMMUNAL FARM	TOTAL
VII. EVALUATION			
1. Monthly Project Status and Progress Assessment		133,949	133,949
2. Quarterly Project Management Evaluation		33487	33487
3. Mid-Year and Year-End Project Assessment by:			
* SOMAKA BOD & UGMAD Staff		103572	103572
* Farmer-Participats of the Project		148,832	148,832
* UGMAD Management Team with SOMAKA BOD and Sogod Staff		62,509	62,509
4. Summative Evaluation *			
5. Impact Evaluation		15,000	15,000
SUB-TOTAL		497,349.00	497,349
GRAND TOTAL	4,871,901	5,820,030	10,691,931

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OTHER FOLLOW-ON PROJECTS

OTHER FOLLOW-ON PROJECTS

Indicative Budgetary Requirement
for Other Follow-on Projects (₱)

1.	Tagubong Project (3 Years)	1,815,700
2.	Babatngon Project (5 Years)	5,785,064
3.	Matiglanginan Project (Expansion Proposal of SELF For 3 Years)	7,500,000

FOLLOW-ON PROGRAM OF TAGUBONG AF PROJECT

I RATIONALE

1. The three (3) year project implementation of RRDP cannot be considered sufficient in attaining the desired development in the area and therefore needs for additional livelihood opportunities for farmers, thus the continued technical support by the DENR-ISF is necessary.

2. The optimal utilization of human resources and facilities present in the area with the joint undertaking of DENR-ERDS, The Tagubong-Agbariri Agroforestry Farmers Association Inc. (TAAFAI), and the Bundok Kalinga Foundation, Inc.

3. Generation of lessons that could be adopted in other ISF areas.

II OBJECTIVES

1. To continue the livelihood activities started by RRDP in order to sustain the enthusiasm of farmers in their desire for economic upliftment;

2. To develop the remaining areas not covered during the three-year project implementation;

3. To continue harnessing and upgrading the technical and management capabilities of farmers through trainings training programs, with particular focus on other livelihood opportunities and cooperative management;

4. To serve as one of the model sites in the region for farm cross-visit and upland technology trainings;

5. To further strengthen the linkages of the association with government and non-government organization to provide assistance to farmers association/cooperative on health services, credit facilities, trainings, technical assistance, etc.

6. Provide for post-harvest facilities that are needed by the community either by loan or grant, and provide marketing support for farm products.

III STRATEGIES

1. Community-based approach

Active participation of farmers at all levels of planning and implementation shall be always observed. Regular meeting/consultation with the officers of the association shall be conducted to solicit ideas, suggestions,and aspirations. Farmers assembly shall also be conducted to obtain the collective decision of the community to ensure total support and commitment from farmers in the implementation of activities.

2. Human Resource Development

Continuous training programs on livelihood opportunities, herbal medicines, higher levels of training on cooperative management, as well as the upgrading of skills on technology to further enhance their potentials as farmer-trainors.

3. Linkages/Networking with Other Agencies

The farmers association shall continue coordinate, establish and strengthen its linkages with financial institutions, non-government and private organizations to support the financial and technical needs of its members, with the support from the DENR Regional Office. The DENR through the Ecosystem Research and Development Services shall assist farmers in the conduct/implementation of livelihood endeavors such as Passion fruit propagation, food processing and other income-generating projects. The Social Forestry Division shall also assist the association in the upgrading of technical skills of farmers and shall act as facilitator in the conduct of trainings contracted/catered by the association. The DENR shall also assist in the lobbying and legworking for the acquisition of post-harvest facilities such as motor engine for rice and corn mill, storage facilities, multi-purpose pavement and other facilities needed by the community. Marketing of agroforest products shall also be assisted by the DENR to ensure availment of reasonable price of farm products sold, preventing the exploitation from local businessmen/buyers.

The Bundok Kalinga Foundation Inc. shall provide technical and administrative support for the association in the conduct of trainings and other activities contracted/ subcontracted by TAAFAI. BKFI and the association shall jointly undertake these activities utilizing local resources (i.e. farmer trainors, staff expertise of BKFI, demonstration farms, etc.) as part of the income-generation activities of the association.

IV TARGET AREA AND BENEFICIARIES

The area covered during the three (3) year project implementation of RRDP at Barangay Tagubong shall be maintained, although replication of improve upland technologies and interventions shall be encouraged in adjacent sitios and barangays.

Target Area : 251.6961

Target beneficiaries : 97 farmers

V COMPONENTS

A. Agroforestry component, livelihood opportunities/income generating programs

1. Mobilize 97 farmers in the continuity of agroforestry implementation; assist farmers with uncompleted development on farmlots.

2. Mobilize the existing farmer-trainors group, encourage and further upgrade their skills and provide more incentives for the conduct of on-site trainings for other upland farmers. Farmers association shall be encouraged to increase the number of trainors to cater to the training needs.

3. Strengthen the farmers association/cooperative thru continuous training programs and further encourage capital build-up, with the joint assistance of DENR and the Cooperative Development Authority (CDA)

4. Introduction/implementation of non-traditional crops in the area for additional source of income (e.g., Passion fruit, cotton and others)

5. Mobilize farmers association to establish more linkage with financial institutions aside from LBP to avail loans/grants to realize post-harvest facilities, transport facility, etc.

B. Reforestation Component

1. The farmers association, with the assistance of the DENR-ERDS shall jointly undertake activities for the maintenance and protection of established reforestation areas.

2. The DENR shall closely work with the association, and provide technical and material support to farmers, encourage to continue the production of forest and fruit tree seedlings, and continue tree establishment/ rehabilitation effort started by RRDP.

3. The association, with technical and financial assistance from DENR shall maintain and rehabilitate the 9.5 kilometers access trail.

C. Support Services Component

1. DENR shall facilitate in the execution of Memorandum of Agreement with the farmers association for the turn-over of equipment, facilities, tools, and animals to the community.

2. DENR-ERDS shall assist the association in identifying markets of farm products, establish linkage with contract buyers that my ensure better income for farmers.

3. DENR shall continue monitoring and evaluation activities, documenting viable lessons from the community after phase-out of RRDP.

4. DENR and the Bundok Kalinga Foundation Inc. shall plan, develop and implement training programs to fully utilize the local resources and facilities in the community and further encourage income generation (training fees, catering, etc.)

VI IMPLEMENTING SCHEME

The Department shall continue technical and institutional support/assistance to the community. The DENR-Ecosystem Research and Development Services-Social Forestry Division shall perform the lead role in the technical support services, providing/fielding community development assistant (CDA) and preferably hiring RRDP-trained staff in order to continue follow-on activities.

The DENR-ERDS in joint collaboration with BKFI, shall assist the association in the preparation and packaging of livelihood project proposals/feasibility study, training modules and proposals for funding by financial institutions, either Government of NGOs. Active participation of the community at all levels of planning and management shall be the key consideration in the pursuance of development efforts. The Department shall also assist in the strengthening of linkages of the association with government agencies, NGOs, PVOs to provide technical and financial support, upgrading of technical and management skills, marketing support and others.

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VII BUDGETARY REQUIREMENTS

		Annual Budgetary Requirement
A.	Personnel Services	
	Community Development Assistant (CDA) - 3	₱ 151,200.00
B.	Maintenance and Other Operating Expenses	
	1. Travel	
	a. Fares	6,500.00
	b. Per Diems	4,300.00
	2. Office supplies	6,000.00
	3. Field Supplies	
	a. Forest tree seeds and seedlings	8,500.00
	b. Fruit tree seeds and seedlings	9,000.00
	4. Trainings	
	a. Farmer-trainors upgrading techl skills	23,500.00
	b. Other livelihood trainings	40,000.00
	c. Management skills enhancement training	35,000.00
	5. Documentation/Process Documentation	75,000.00
	6. Repair and maintenance	5,600.00
	7. Technical assistance	2,800.00
C.	Capital Outlay	
	1. Maintenance of access trail	9,500.00
	2. Motor engine 16 horsepower (CY 1992)	40,000.00
	3. Warehouse/storage 10m x 6.0m (CY 1992)	650,000.00
	4. Multi-purpose pavement 5.0m x 3.0m (CY 1992)	70,000.00

BREAKDOWN:

Year 1 (CY 1992-93)	-	₱1,136,900.00
Year 2 (CY 1993-94)	-	₱ 376,900.00
Year 3 (CY 1994-95)	-	₱ 301,900.00
		₱1,815,700.00

RRDP-BABATNGON AGROFORESTRY PROJECT
Babatngon, Leyte

FOLLOW-ON PROJECT FOR RRDP-BAP (CY 1992- CY 1996)

RATIONALE

The RRDP-Babatngon Agroforestry Project was implemented in CY 1988 covering seven (7) barangays of Babatngon, Leyte and involving 120 farmer-participants. It had the ultimate objective of helping the farmer-participants attain economic profitability at the same time improve the ecological condition of the project site.

With the implementation of the project, farmer-participants transformed their farmlots from cogonal areas into productive agroforestry farms which became their main source of income. Participants were organized into four (4) Farmers Multi-purpose Cooperatives which they plan to federate into an umbrella organization (Federation of Babatngon Farmers Multi-purpose Cooperative). Minimal revolving fund was generated from off-farm employment component of the project (Graded Trail Establishment/Maintenance). Livelihood projects were also established by the cooperatives with capitalization taken from their revolving funds which they plan to expand thru a financial assistance from the Land Bank of the Philippines (LBP), Tacloban City.

The conversion of the project site from timberland/public land into Alienable and Disposal Land (A & D)has affected greatly the operations in the project specially in the issuance of security of land tenure among farmer-participants thru CSC. On the other hand, reforestation component of the project which serves as the main source of the revolving funds of the farmers was abolished. Inspite of this, continuous effort to provide security of the tenure among farmers is being undertaken thru a close coordination with the Department of Agrarian Reform (DAR), Region 8 for possible inclusion with the comprehensive Agrarian Reform Program (CARP).

However, inspite of the aforementioned developments, various problem beset the project specifically the farmlots of the farmers. Because of the geographical location of the project site (typhoon belt region), the farmers farmlots were damaged by typhoon Undang in CY 1988 which forced them to re-developed their areas in order to meet their basic needs. It is on this aspect that a follow-on project for RRDP-BAP is proposed to extend the necessary assistance for RRDP-BAP participants and meet the sustainable economic profitability of the farmers

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PROJECT CONCEPT

Basically, the feed mill project shall support the feed requirements of the existing self-reliant livelihood projects (livestock) of the four (4) farmers Multi-purpose cooperative that will be financed by the Land Bank of the Philippines (LBP). Also, the project will earn income by marketing its output in Tacloban City.

The feed mill project shall be administered by the Federation of Babatngon Farmers Multi-purpose Cooperative which is composed of a Board of Directors and Cooperators with the technical assistance of the RRDP-BAP and EVRDFI staff.

The financial support of the project operation, except project administration, shall be treated as starter inputs for the farmers Federation and Farmer Cooperatives. Once profit is realized, all inputs of the operation shall be collected by the federation from the Cooperatives/ and shall be treated as a revolving fund/ capital for its future use even without the financial support from DENR.

OBJECTIVES

A. General

To be able to assist RRDP-BAP participants who are organized into four (4) Farmers Multi-purpose Cooperatives and (1) Federation as an umbrella organization, attain economic profitability thru the implementation of a Feed Mill Project, livestock based livelihood projects, provision of land tenure (land titles) and technical assistance from EVRDFI and RRDP-BAP staff before the end of CY 1996.

B. Specific

1. To establish one (1) unit feed mill in support to the livelihood projects (livestock) of the Farmers Cooperatives.

2. To strengthen the management of the federation of Babatngon Farmers Multi-purpose Cooperatives in operating feed mill project thru the technical assistance of the EVRDFI and RRDP-BAP staff.

3. To strengthen the management of the four (4) existing Farmers Cooperatives in operating their livestock based livelihood project.

4. To provide assistance to all RRDP-BAP members avail land titles as security of tenure over their areas thru proper coordination with Department of Agrarian Reform, Region 8, Tacloban City.

5. To assist the four (40 farmers Multi-purpose cooperatives in Babatngon, Leyte avail financial assistance from Land Bank of the Philippines (LBP) in Tacloban City and expand the self-reliant livelihood projects of the farmers.

STRATEGIES

The following are the major strategies to be followed in implementing the proposed follow-on program of RRDP-BAP:

1. Project Supervision

   The project will hire five (5) technical staff to assist the Farmers Cooperatives/Federation in all aspects of their operations.

2. Trainings/Fieldtrip

   There will be training on feed mill management, root crops utilization into feeds and other related trainings in coordination with ViSCA, Cooperative Development Authority so as to provide the necessary technical know-how for the farmers. Likewise, educational fieldtrip to successful cooperatives shall also be conducted so that farmer-participants could observe actual project operations.

3. Meeting/Workshop

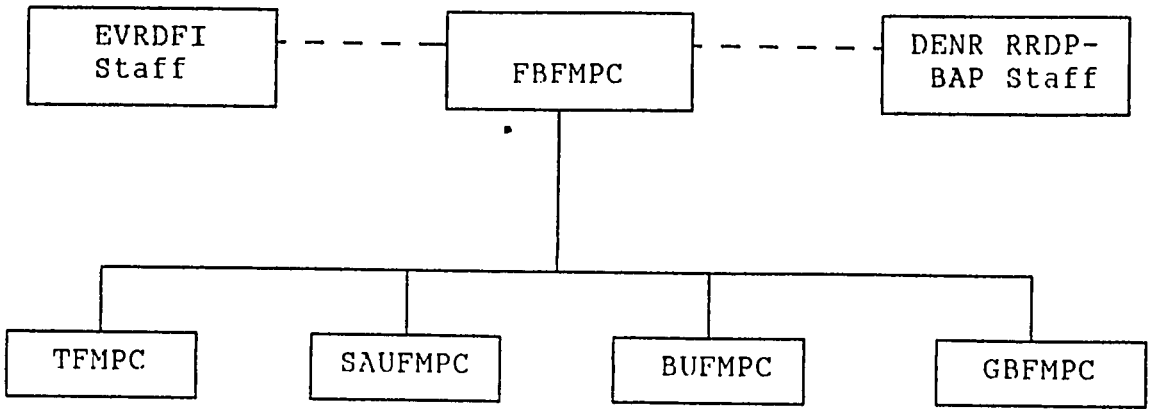
   This strategy shall be conducted regularly so that effective communication and participation among farmers will attained and the farmers organization will be strengthened.

4. Coordination with ViSCA

   Close coordination with the Visayas State College of Agriculture (ViSCA), Baybay, Leyte shall be conducted in order to provide research and other services for the project.

5. Affiliation with the Eastern Visays Rainfed Development Foundation, Inc. for institutional development support.

ORGANIZATIONAL SET-UP



Legend

FBFMPC	-	Federation of Babatngon Farmers Multi-purpose Cooperative
SAUFMPC	-	San Agustine Upland Farmers Multi-purpose Cooperative
BUFMPC	-	Babatngon Upland Farmers Multi-purpose Cooperative (Composed : Naga-asan, Malibago, Pagsulhugon)
GBFMPC	-	Gov. Jaro Bagong Silang Farmers Multi-purpose Cooperative
TFMPC	-	Taguite Farmers Multi-purpose Cooperatives

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RRDP - BABATNGON AGROFORESTRY PROJECT
BABATNGON, LEYTE

TARGETS AND BUDGETARY REQUIREMENTS FOR FOLLOW-ON PROJECT (CY 1992-CY 1996)

MAJOR ACTIVITIES	Unit of Measure	CY 1992		CY 1993		CY 1994		CY 1995		CY 1996		TOTAL	
		Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)
PROJECT ADMINISTRATION													2,592,040
1. Project Supervision	manday	1,320	270,000	1,320	279,000	1,320	326,700	1,320	359,400	1,320	395,340	6,600	1,630,440
2. Communication			6,000		6,600		7,260		7,980		8,784		36,624
3. Travel (Fares/Per Diems)			60,000		66,000		72,600		79,860		87,840		366,300
4. Office Supplies			6,000		7,200		8,400		9,600		10,800		42,000
5. Illumination			12,000		1,320		1,452		1,596		1,764		18,132
6. Registration of motor vehicle			500		550		605		665		732		3,052
7. Fuel & Oil			13,200		14,520		15,972		17,568		19,320		80,580
8. Repair & maintenance of motor vehicle			12,000		13,200		14,520		15,972		17,568		73,260
9. Representation allowance			12,000		12,000		12,000		12,000		12,000		60,000
10. Publications													
a. News Paper Subscription	copies	365	3,650	365	4,380	365	5,110	365	5,840	365	6,570	1,825	25,550
b. Newsletter Production	copies	200	10,000	200	12,000	200	14,000	200	16,000	200	18,000	1,000	70,000
11. Process Documentation (2x/yr)	no. of report	2	20,000	2	22,000	2	24,200	2	26,620	2	29,282	10	122,102
12. Repair & Maint. of Govt. facilities			2,000		2,000		2,000		2,000		2,000		10,000
13. Technical Assistance	manday	72	10,800	72	10,800	72	10,800	72	10,800	72	10,800	360	54,000
PROJECT COMPONENTS													
A. FEED MILL PROJECT													
1. Procurement of Equipment													429,000
1.1 Hammer Mill	unit	1	91,400									1	91,400
1.2 Mixer w/ foot dump	unit	1	100,700									1	100,700
1.3 Platform balance movable	unit	1	10,000									1	10,000
1.4 Portable bag sealer	unit	1	20,000									1	20,000
1.5 Weighing scale (10 kg capacity)	unit	1	1,000									1	1,000
1.6 Light consumption			3,600										3,600
1.7 Repair & Maint. of Machinery			36,000		36,000								72,000
1.8 Exhaust Fan	unit	3	8,100									3	8,100
1.9 Pallets	unit	10	1,500									10	1,500
1.10 Push Cart	unit	1	700									1	700
1.11 Housing/Bodega	unit	1	120,000									1	120,000

MAJOR ACTIVITIES	Unit of Measure	CY 1992		CY 1993		CY 1994		CY 1995		CY 1996		TOTAL	
		Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)	Target	Budget(P)
2. Procurement of Raw Materials													2,350,944
2.1 Cassava Mill	kg	105,600	211,200	105,600	211,200							211,200	422,400
2.2 Yellow or White Corn	kg	34,560	103,680	34,560	103,680							69,120	207,360
2.3 Rice Bran (1st class)	kg	31,680	31,680	31,680	31,680							63,360	63,360
2.4 Copra meal	kg	29,280	87,840	29,280	87,840							58,560	175,680
2.5 Fish meal	kg	16,320	163,200	16,320	163,200							32,640	326,400
2.6 soy Bean Meal	kg	460,800	460,800	460,800	460,800							921,760	921,600
2.7 Meat & Bone Meal	kg	2,880	34,560	2,880	34,560							5,760	69,120
2.8 Molasses	kg	5,280	3,600	5,280	3,600							10,560	7,200
2.9 Limestone Powder	kg	672	672	672	672							1,344	1,344
2.10 Vitamin Mineral Pre-mixed	kg	720	54,000	720	54,000							1,440	108,000
2.11 Ipil-ipil Leaf Meal	kg	14,400	21,600	14,400	21,600							14,928	43,200
2.12 Salt	kg	528	2,640	528	2,640							1,056	5,280
B. PIGGERY													118,880
1. Housing	unit	4	80,000									4	80,000
2. Procurement of Swine	head	20	18,000	20	20,000							40	38,000
3. Medication	bottle	8	400	8	480							16	880
C. BROILER PROJECT													57,800
1. Housing	unit	4	40,000									4	40,000
2. Procurement of Swine	head	400	7,600	400	8,800							800	16,400
3. Medication	bottle	8	600	8	800							16	1,400
D. TRAININGS/FIELD TRIPS													126,000
1. Training	mandays	360	54,000									360	54,000
2. Field Trip	mandays			360	72,000							360	72,000
E. FARM DEVELOPMENT/MAINTENANCE													110,400
1. Corn Production	ha	30	110,400									30	110,400
2. Cassava Production	ha	30										30	
TOTAL			2,317,622		1,765,122		515,619		565,901		620,800		5,785,064

MATIGLANGILAN AGROFORESTRY PROJECT

RATIONALE

We have accumulated extensive experiences during the implementation of the RRDP Marilog Agroforestry Project. To replicate the RRDP experience, another ISF area will be exposed to a similar project.

BACKGROUND OF THE PROJECT:

From 1988 through 1991, we implemented Matiglangilan Tribe Livelihood Project in Sitio Paiton, Barangay Dagohoy, Kapalong, Davao del Norte. Purposely designed to help alleviate the quality of life of the Matiglangilans, the project planned to assist 100 Matiglangilans, select and train 10 leaders, install a lending program, and form a cooperative among them.

A total of 163 Matiglangilans have been recruited and assisted by the project, out of which 120 have planted high-value and permanent crops consisting of high grade coffee, cacao, calamansi, and blackpepper. Of the 163 beneficiaries of the project, 102 have been trained on various agricultural technologies which include coffee, blackpepper, rat control, asexual propagation, SALT, and the like.

Ten leaders have been selected and have been thoroughly trained in the method of asexual propagation. The farms of these ten leaders became the 10 demonstration farms of the project. Beneficiaries of the project have established in their farms contour hedgerows which have an aggregate total length of 14.4 kms. A multi-purpose solar drier and a 24-cubic meter concrete water tank have also been constructed for the Matiglangilans.

SITUATIONAL ANALYSIS

1. Location

The project site is the Langilan Settlement in Barangay Paiton 100 kms from Davao City. Flat lands in the Paiton area are hard to find and are now planted to low value crops like rice and corn but are necessary for the communities viability. However, hilly areas where fruit trees can be grown are available and the logging roads are in fairly good shape but new bridges have to be built.

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In the Paiton area, a lot of leg work has to be done. In this connection we will need four extension workers to do the technical inputs and as well as coordinate with the different agencies that may be involved with the project. A lot of dialogue and consultations with the natives has to be done.

2. Social/Ethnic Characteristics

The Langilans are a non-Muslim cultural minority tribe who once lived in the lowlands along the Ilang-Ilang River in Davao del Norte. They are a fierce and proud people. With the coming of many ethnic groups to Davao, this tribe was forced to move their settlements deeper into the mountains and forests. Today, about 20,000 Langilans are scattered in the hinterlands of Davao del Norte up to the boundaries of Agusan and Bukidnon.

Subsistence farming is practiced at Barangay Paiton with corn, rice and sweet potato as the predominant crops. A large portion of flat lands is confined to corn and rice production. The rest are forest lands which are mostly cogonal and secondary growth forests. Wildlife, which is the main source of protein is fast becoming scarce making the hunger situation worse.

Tribal groups are traditionally nomadic in nature. As forest gatherers,there is little need to cultivate crops or domesticate animals since these are easily taken from the forest. Those that do settle practice very primitive agriculture and usually leave the soil unproductive after three to four croppings.

3. Economic Characteristics

The continued destruction of the forest by large logging firm and the shifting cultivators have drastically changed the livelihood to cultural communities. For one thing, less wild animals roam the forest.

The change in the forest species also affect the amount of food they can gather. To augment their food intake, some have ventured into the collection of rattan for furniture makers and wood saplings for banana crops. These activities further aggravate the already imbalance ecological condition in the area and further aggravate the hunger situation.

Economic activities are dominated by gathering secondary forest products like rattan and saplings. This however, is dominated by very few individuals. Most of the tribals derive some cash selling crops that are grown on the hill side. Transporting these is a problem since no passenger vehicles ply the route. The only mode of transportation are occasional motorcycles.

High yielding and high value crops are not extensively cultivated. Furthermore inadequate technical knowledge on the culture of high value and high yielding crops has limited crop

production. Most of the plants cultivated are traditional varieties which are very susceptible to pests and diseases and are very low yielding.

Their economic viability is aggravated by the lack of marketing outlet for harvested farm products. Farmers are highly dependent on middlemen in marketing their products which are usually assess at low rates.

All of these problems contribute to the problem of poverty and hunger, both of which lead to poor health, high infant mortality, susceptibility to disease like Tuberculosis and Malaria. Such conditions bring them to subhuman level of existence.

While the project has significantly contributed to solving Matiglangilans' economic problems, much have yet to be done to place them in a situation where they could lead a life of basic comfort and security. Many of the beneficiaries have only developed 1/4 of their farm, and have learned only the basics of sound agricultural practices. To achieve a sufficient level of production that will afford them sufficient income, at least half a hectare of their farm should be productive.

GOAL

Improve the physical environment through reforestation and agroforest development of 300 Matiglangilan families.

OBJECTIVES AND IMPLEMENTATION PLAN

The following are the specific objectives of the project:

1. To be able to stop soil erosion and conserve soil fertility by introducing Soil and Water Conservation techniques such as constructing hedge rows, rock walls, drainage canals and the like.

2. To be able to make tribals understand the importance of soil and water conservation.

3. To introduce new crops that would improve their nutrition and reduce malnutrition.

4. To introduce high value crops like cacao, coffee, black pepper and some vegetables and fruit trees from which beneficiaries will be able to earn enough income.

5. To introduce the planting of perennial crops in place of annual crops on sloping areas..

6. To improve cultural practice such as pest control, application of fertilizers, pruning and if possible irrigation on traditional crops like cacao and coffee in order to increase their yield.

7. To enable them to produce enough food for their consumption and a surplus from which they will be able to convert into commodities they will need.

8. To be able to identify from the key leaders a trainor who will take the task of training other potential or interested parties within and near the locality in the agricultural production.

OPERATIONAL PLAN/IMPLEMENTATION:

Project Management:

The Settlements and Livelihood Foundation (SeLF) will itself provide the training and organization of these settlers and provide the inputs, technology, management and marketing service that will be necessary.

Training and Orientation:

Selected farmer beneficiaries shall go on field trips to agricultural farms to learn from actual demonstrations new and different farming technologies which can be applied to the project. A learning by doing type of training shall be adopted. These trainees are expected to reecho what they have learned to the other members of their community. This farmer-to-farmer level of instruction is more reliable since the farmer is more "credible" than the technician

The training program will include modules on the basic rudiments in farming. These modules such as Soil and Water Conservation, Composting, Fertilizer, Soil Sampling & Analysis, Blackpepper, Coffee, Rat Control and the like will be imparted to the newly recruited beneficiaries mostly located in Km 17.

It will also include modules on Coffee Processing Technology, Calamansi, and other appropriate technologies which the farmers are interested to learn. Most of these will be imparted to those beneficiaries who have already undertaken the basic modules mentioned above.

Trained leaders in Paiton will be tapped to train the farmers in Km 17. Not only will they be able to communicate in their own dialect, but they themselves can have a firsthand account of the many benefits of the technologies that are being discussed.

The training program will also include educational fieldtrips to areas adapting sound agricultural technologies and cross visits to established farms of the old beneficiaries of this project.

AGROFORESTRY

Wherever fruit trees are planted there will be soil conservation and ecological protection. Fruit trees have an advantage over wood trees in that there will be less temptation to cut them down for fire wood or sappling props.

Farmers have started to plant coffee, cacao, nangka, calamansi and mangos. Intensification of agroforest development will be promoted in the project. Other perennial crops such as rubber and other fruit trees shall be introduced.

REFORESTATION

When there is need for wood trees there are a number of varieties that have a shorter time of growth such as Gmelina arborea, neem, mahogany, and raintree.

Wood trees will be planted to be the source of fuel wood for domestic consumption. With training, farmers may be taught to thin out the trees and selectively prune undesirable branches. It is expected that these mini-forest will be located near the farmer participant's house.

V. PROJECT MONITORING

A baseline study will be conducted to be able to get a broad spectrum analysis of the socioeconomic condition. Of specific interest will be current agricultural productivity and production mechanics, marketing studies,analysis of social infrastructure.

Agricultural production, before and after the project will be monitored. Special interest will go into the amount and type of crops and livestock that are produced.

The dwelling areas will be observed. Houses will be characterized taking into account the No. of rooms, the type of flooring, walling and roofing materials , the type of kitchen, presence of out houses.

Social facilities like communal irrigation systems, recreational facilities like play grounds, basketball courts, meeting places, chapels, and the like will also be characterized.

The mode of transport and types of roads.

Educational facilities or number of people who are educated if any will also be used as part of the base line information.

The primary objective which is to be able to preserve the soil and ecology of the denuded forests and logged over areas will be monitored through the records of the project officers. The number of actual adoptors of soil and water conservation techniques will be assessed as well as the area that is covered.

INDICATIVE BUDGET

The total project cost is P 7,500,000.00 summarized as follows:

Project Administration	P	2,000,000.00
Farmers Assistance		1,000,000.00
Community Works		3,000,000.00
Facilities and Equipment		1,000,000.00
Nursery Operations		500,000.00
TOTAL	P	7,500,000.00

APPENDIX A

AGROFORESTRY PROJECT PROFILE

PROJECT PROFILE

1. *Name of Project* : RRDP KIBLAWAN AGROFORESTRY PROJECT (RRDP-KAP)

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - Pasiq, Kiblawan, Davao del Sur

3. *Contact Person(s)*

   - Zenaida T. Pantujan - PM RRDP-KAP
   - Emelord R. Lim - President, KRDFI

4. *Farmer Organization(s)*

   - Kiblawan Rural Development Foundation, Inc. (KRDFI)
   - Pasiq Multi-purpose Cooperative
   - 18 Workgroups

5. *Training Profile*

   a. No. of Farmer Trainors - 9 farmer-cooperators

   b. Facilities

      - training center, beddings, 4 comfort rooms, kitchen, staffhouse, kitchenwares

   c. Upland Technology existing on the Site

      - Integrated Contour Hedgerows - organic fertilizer technology/com. refo.
      - Multi-storey cropping

   d. Training Equipment Available

      - White board, blackboards

6. *Project Staff Strength*

   a. Capabilities/Expereinces

      - Agroforestry, workgroup organization, communal refo establishment

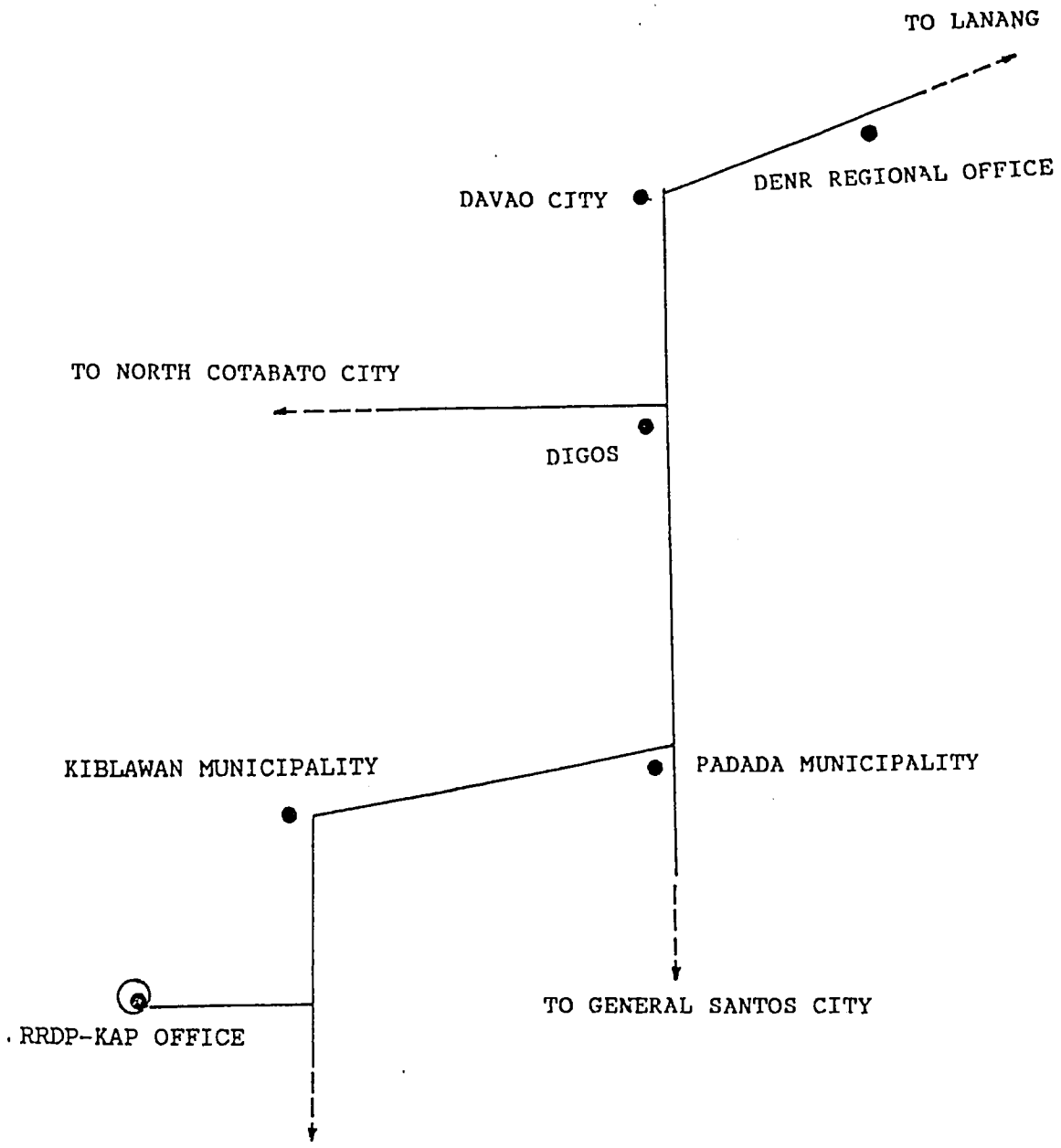
   b. Number - 10

7. *Other Information*

   - 105 kms from DENRR Office, Lanang Davao City
   - Accessible thru an all-weather road

Approximate Distance

.105 kms. from the DENR, Regional Office to RRDP, Kiblawan Agroforestry Project Office, Pasig, Kiblawan, Davao del Sur



Distance to and from the RRDP-Kiblawan Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : VISARES AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - Km 77, Brgy Visares, Capoocan, Leyte; 77 kms away from Tacloban City and 40 kms away from Ormoc City

3. *Contact Person(s)*

   - Manuel J. Saceda - DENRRO, No. 8 Sto. Nino Ext., Tacloban City
   - Ciriaco Apan - UMACAP BDD Chairman Km 77 Visares, Capoocan, Leyte

4. *Farmer Organization(s)*

   - UMACAP (Unyon ng mga Mag-uuma sa Capoocan) Foundation, Inc.

5. *Training Profile*

   a. No. of Farmer Trainors - 15

   b. Facilities

      - Training Hall and reading center, Multi-purpose building with office, living quarter

   c. Upland Technology existing on the Site

      - Communal Reforestation, Soil/Water Conservation Measures, Livestock integration, multi-cropping, Upland Aquaponds

   d. Training Materials/Equipment Available

      - Visual aid materials, slide projector, public address system

6. *Project Staff Strength*

   a. Capabilities/Experiences

      - Technical agroforestry training for trainors, extensionists and farmer leader, nursery operations and plantation management, community organizing, communal reforestation; integrated crop - livestock production

   b. Number - 4

PROJECT PROFILE

Settlements and Livelihood Foundation, Inc.
Rivera St., Bajada, Davao City

1. *Name of Project* : MARILOG AGROFORESTRY PROJECT

2. *Location* (Please Include direction in getting to the area; preferably a sketch map)

   - Brgy Mariloq, Davao City
     Specifically: Sitios Crossing "S", Balite, Pamuhatan, West Marahan

3. *Contact Person(s)*

   - Alberto C. dela Paz

4. *Farmer Organization(s)*

   - RRDP Farmers Association of Crossing "S": Balite, RRDP Farmers' Association; Pamuhatan RRDP Farmers' Association; West Marahan Farmers' Cooperative

5. *Training Profile*

   a. No. of Farmer Trainors

      - Not yet organized, farmers tied up to their farm works (will organize during follow-on period)

   b. Facilities

      - RRDP multipurpose building, Public school bldg, Brgy multipurpose building

   c. Upland Technology existing on the Site

      - SWC, Reforestation, Seed Selection, Nursery Management, Farmer Coop Formation, OPV Corn var. Production, Coffee Production, Coffee Pulping Technology

   d. Training Materials/Equipment Available

      - Battery-operated slide projector, Stock of References (slides and audio cassettes, videos)

6. *Project Staff Strength*

   a. Capabilities/Experiences

      - Community Organizing; Project Planning and Implementation

- o Non-formal Community Education; Soil and Water Conservation Technologies

b. Number - 20 employees

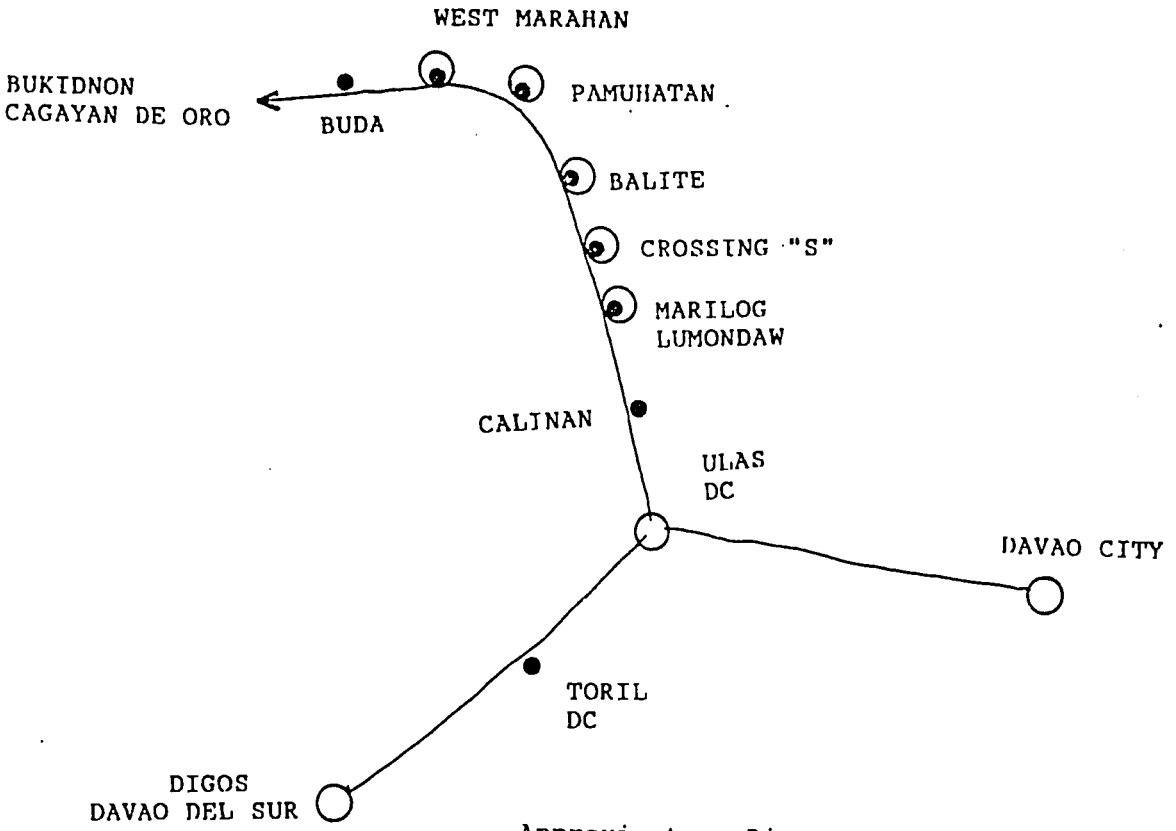
7. *Other Information*

Linkages

- o DSWD, Inst. of Primary Health Care, PEACE Foundation, Bigay Puso Foundation, Univ of Southern Mindanao, FAO, UNAC

Multiplier Effect

- o Crossing "S", NFP Contract ₱880 thousand facilitated by SeLF
- o Video Camera, Motorcycles, pick-up
- o Acceleration of Corn Production along Hedgerows Acceleration of Cassava production



Approximate Distance To & From DAVAO CITY

West Marahan	-	68 kms.
Pamuhatan	-	64 kms.
Balite	-	61 kms.
Crossing "S"	-	59 kms.
Marilog	-	49 kms.
Calinan	-	28 kms.
Ulas	-	8 kms.

AGROFORESTRY SITIOS

Road Sketch to and from RRDP-Marilog
Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : SAN MIGUEL AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - San Miguel, Baungon, Bukidnon, Region 10

3. *Contact Person(s)*

   - Samuel Jumawid - c/o DENR, Puntod, Cagayan de Oro
   - Cresente Bacabis - San Miguel, Baungon, Bukidnon

4. *Farmer Organization(s)*

   - Mt. Kitanglad Community Development Foundation, Inc.

5. *Training Profile*

   a. No. of Farmer Trainors - 5

   b. Facilities

      - Training hall
      - Five bedroom staff house (30 persons capacity) with dining hall
      - Beddings and utensils

   c. Upland Technology existing within the Site

      - Soil and Water Conservation Structures
      - Fruit Orchard (mango & cashew)
      - Crop-livestock integration/multiple cropping/ diversified farming
      - Farmers tree plantations

   d. Training Equipment Available

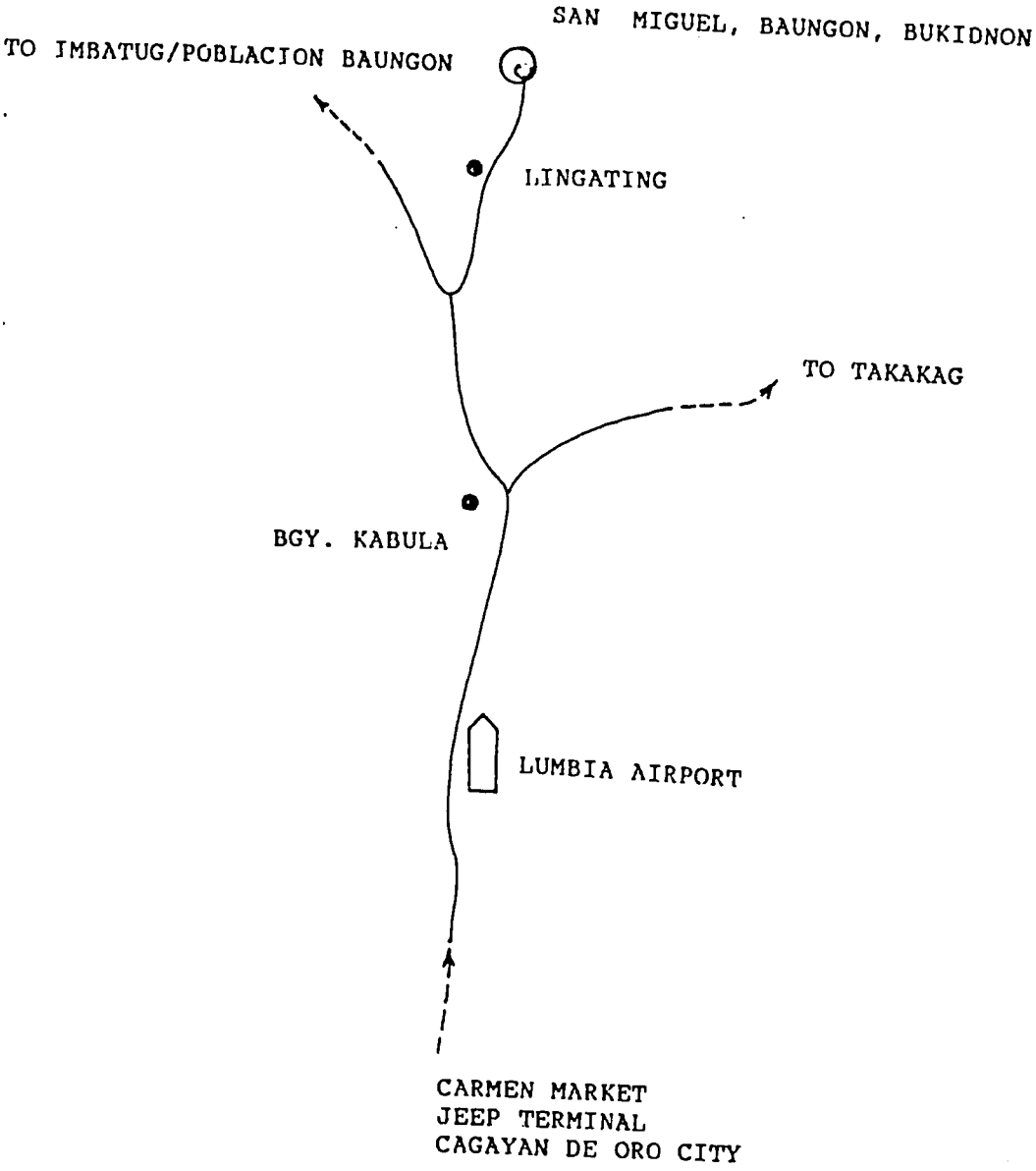
      - Writing boards and audio/sound system

6. *Project Staff Strength*

   a. Capabilities/Experiences

      - Forester, Training Specialist, Agriculturist, Community Organizers, Nursery Supervisor, Clerk

   b. Number - 9



Road Sketch to and from RRDP-San Miguel
Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : COSINA AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - Cosina, Talakag, Bukidnon (10 km or 25 km travel time from an all weather road).

3. *Contact Person(s)*

   - Romeo L Balse - Project Manager
   - Arsenio Dumalig - Farmer Leader

4. *Farmer Organization(s)*

   - Clover workgroup
   - Luqayan workgroups

5. *Training Profile*

   a. No. of Farmer Trainors - 3

   b. Facilities - None

   c. Upland Technology existing within the Site

      - SWC with sunflower
      - Multi-storey cropping
      - Hot pepper
      - Pineapple
      - Reforestation
      - Nursery/backyard

   d. Training Equipment Available

      - Karaoke, Blackboards, 2 typewriters

6. *Project Staff Strength*

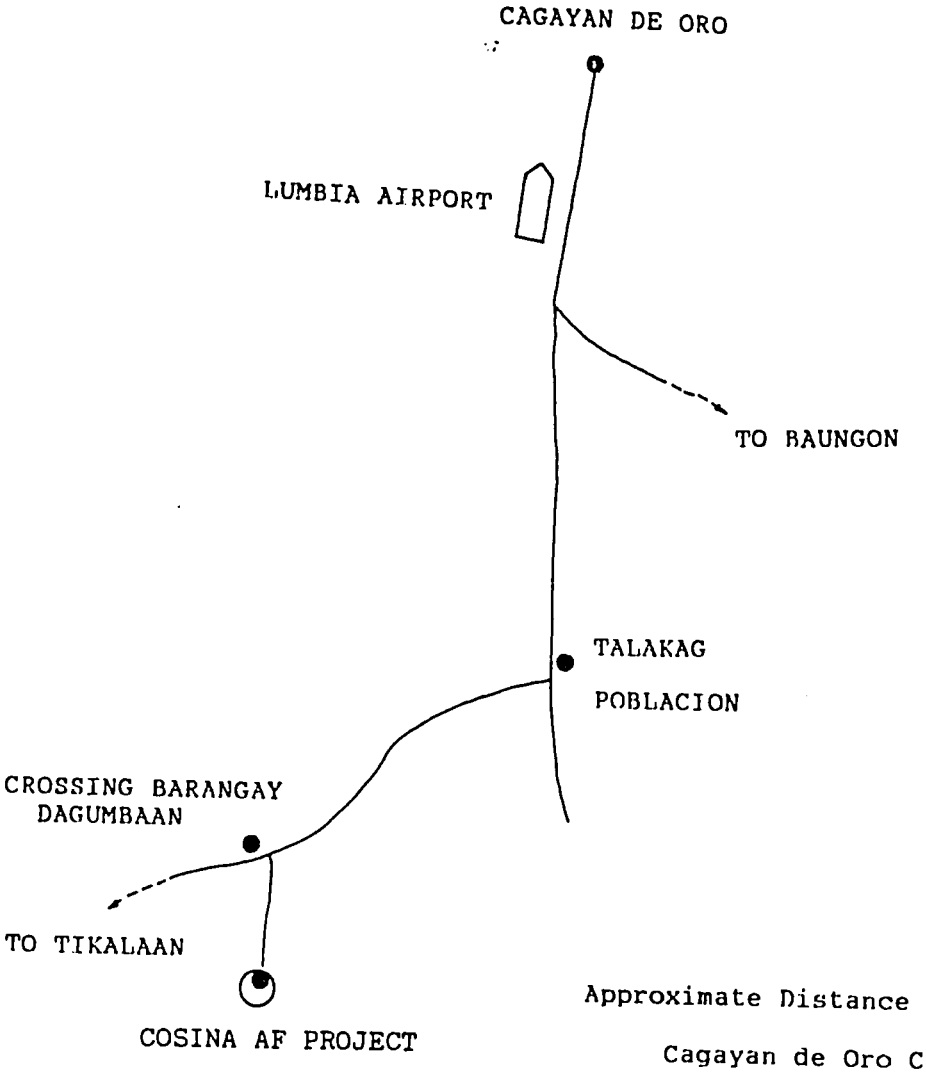
   a. Capabilities/Strengths

      - BS on agriculture, forestry and related courses

   b. Number - 4

7. *Other Information*

- The project site is suitable for AF development with existing upland technology - coffee shredded w/ falcata
- 90% of the farmers are cultural minority
  - Tala-andiq tribes 60%
  - Higa-onon tribes 20%
  - Bukidnon tribes 10%



Approximate Distance From the Site

Cagayan de Oro City	-	46 kms.
Talakag Poblacion	-	14 kms.
Dagumbaan Junction	-	6 kms.

Road sketch to and from RRDP Cosina Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : UPI AGROFORESTRY PROJECT MAGUINDANAO

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   o P. C. Dolores, Durugao, Upi, Maguindanao

3. *Contact Person(s)*

   o Noel Allado - Project Manager

4. *Farmer Organization(s)*

   o SURDA

5. *Training Profile*

   a. No. of Farmer Trainors - 5

   b. Facilities

      o 1 unit ASTRO jeep, Motorcycle, office table, staff house

   c. Upland Technology existing on the Site

      o SWC/Sesbania, flamengia; Multiple Cropping; Crop Rotation, Backyard Nursery Management; Reforestation; Backyard Nursery SALT (contour farming/rockwalling)

   d. Training Equipments Available

      o 1 Karaoke, 4 typewriter, 1 blackboard, [illegible] board

6. *Project Staff Strength*

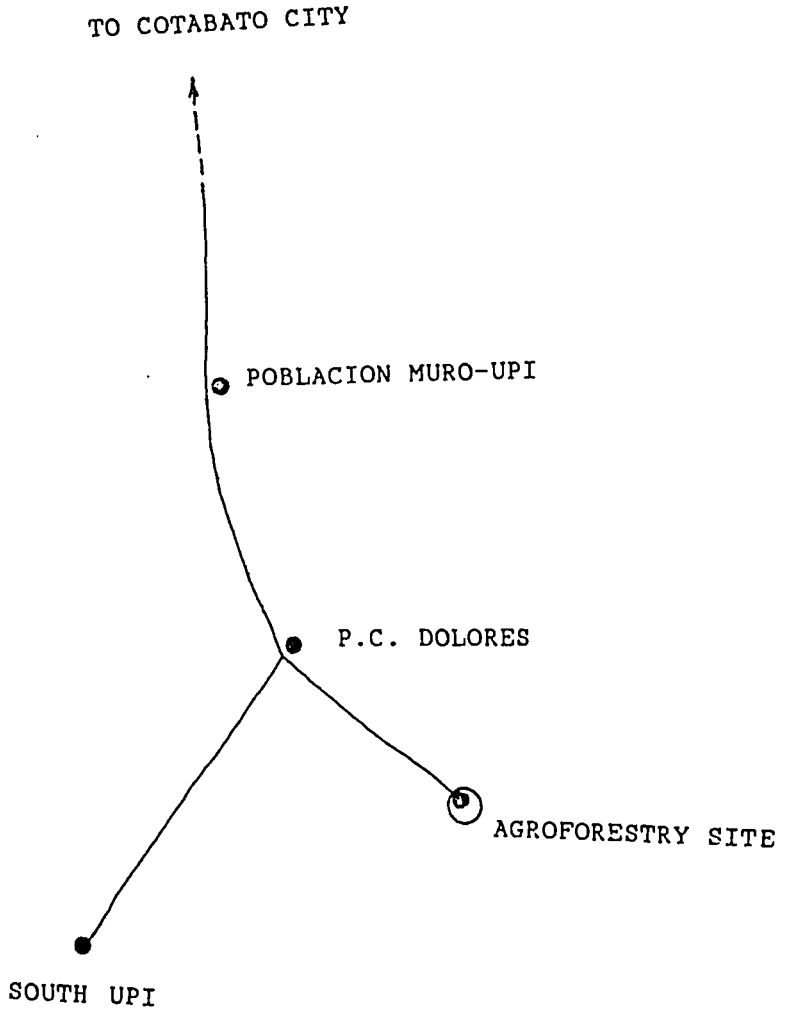
   a. Capabilities/Experiences

      o Community Organizning; Technical Agroforestry Training for Tainors; FArmer Extensionist/Leaders; Nursery Operations; Plantation Management; Communal Reforestation

   b. Number - 3

7. *Other Information*

- The project site is sustainable for agroforestry development with existing upland technology
- 95% of the farmers belong to an indigenous tribe
  - Tiruray tribes 80%
  - Ilonggo tribes 3%
  - Waray tribes 7%



Approximate Distance from Site

Cotabato City	-	45 kms.
Poblacion, Muro-Upi	-	8 kms.
P.C. Dolores Junction	-	1 km.

Road Sketch to and from RRDP-Upi Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : MASARAGA AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - 3 kms or 30 minute-walk from nearest all weather road

3. *Contact Person(s)*

   - Justino R. Arboleda - Dean, Buca Guinobatan, Albay
   - Alaster O. Nuyda - Dept Chairman, Agrof Dept., BUCA

4. *Farmer Organization(s)*

   - Masaraga Agroforestry Farmer's Association

5. *Training Profile*

   a. No. of Farmer Trainors - 19

   b. Facilities - Multi-purpose building

   c. Upland Technology existing on the Site

      - SALT

      - Fingerling Production (Aquaculture)

   d. Training Materials Available

6. *Project Staff Strength*

   a. Capabilities/Experiences

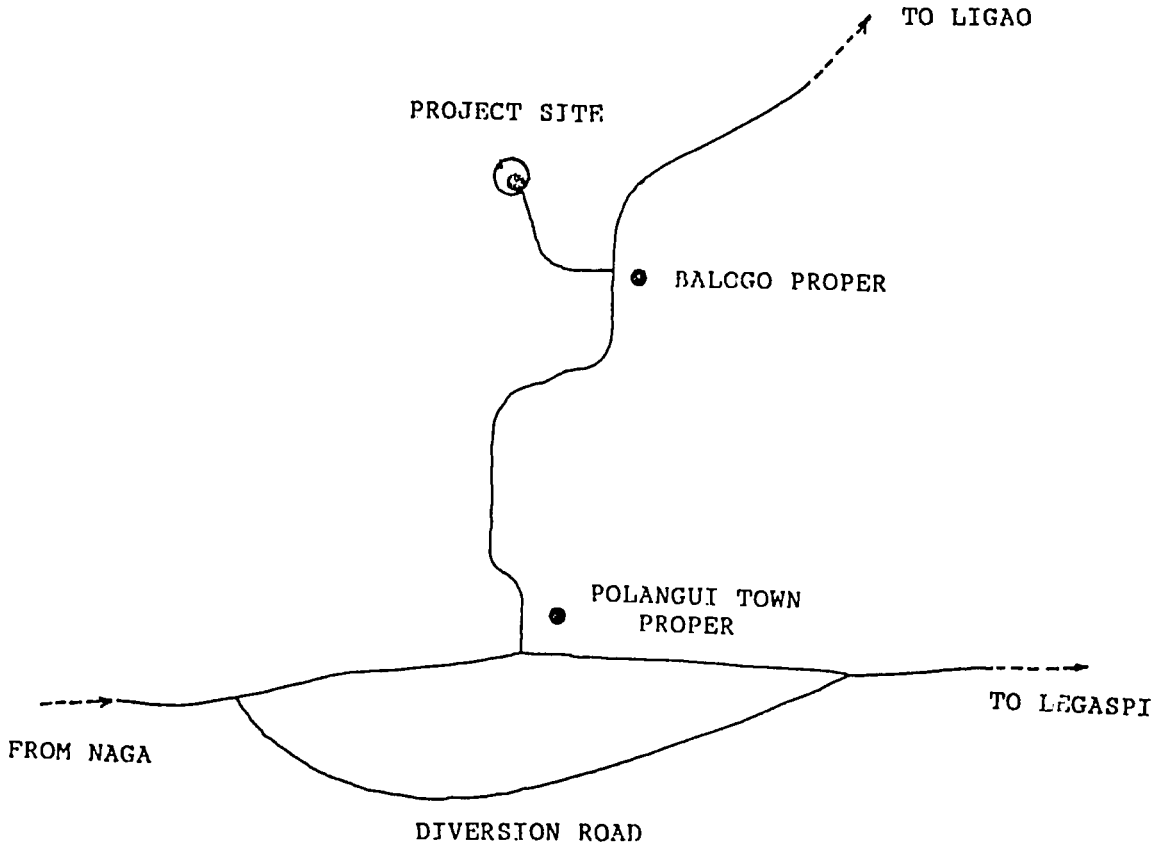
      - SWC with indigenous species (kakawate); Integrated SWC - strip composting; multiple fingerling production; nursery management; postharvest, seed technology; and community organizing

   b. Number

      - not indicated

7. *Other Information*

   - The project now caters to the off-site training need of the ISFP Farmers and technician and also the social laboratory of the college for undergrad and graduate students as well as NGOs in the area.



Road Sketch to and from RRDP-Masaraga Agroforestry Site

PROJECT PROFILE

1. *Name of Project* : MURCIA AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - So. Campuestohan, Cabatangan, Talisay; So. Managaksak, Sta. Cruz Murcia and So. Ananque, Buenavista, Murcia

3. *Contact Person(s)*

   - Lucille Titular - Manager, (Tel No. 26308)

4. *Farmer Organization(s)*

   - BACIWA Farmers Multipurpose Cooperative

5. *Training Profile*

   a. No. of Farmer Trainors - 12

   b. Facilities

      - Multipurpose center; vehicle; staffhouse; water system; access trails

   c. Upland Technology existing on the Site

      - Multistorey planting, contour levees with hedgerows, log contours

   d. Training Materials Available

      - SALT; Animal production, CO/CD

6. *Project Staff Strength*

   a. Capabilities/Experiences

      - Agriculture; Forestry
        Community Organization on forestry
        related courses, agroforestry, reforestation

   b. Number - 4

7. *Other Information*

   - Area has remaining stands of original forest, e.g., almaciga, lauan.

PROJECT PROFILE

1. *Name of Project* : Magdungao Agroforestry Project

2. *Location*: (Please include direction in getting to the area: preferably a sketch map)

   - Barangay Magdungao, Passi, Iloilo
     (3 kms or 45 minutes travel time from an all weather road, Roxas, Iloilo Highway)

3. *Contact Person(s)*

   - Ysmael P. Palada - Project Manager
     c/o DENR Region 6, Iloilo City
   - Belarmino Pagurayan - President, Mandungao AF
     Farmers Assoc. Inc.
     Passi, Iloilo
   - Efren C. Gerardino - Training Coordinator
     Magdungao AF Farmer's Assoc., Inc., Passi, Iloilo

4. *Farmer Organization(s)*

   - Magdungao Agroforestry Farmers' Association,Inc.
   - Magdungao Agroforestry Women's Organization

5. *Training Profile*

   a. No. of Farmers' Trainors

      - 11

   b. Facilities

      - Staffhouse
      - Training dormitory
      - Training hall
      - Mess hall
      - Water sSupply systems
      - CR and bathrooms

   c. Upland Technologies Existing within Site

      - SWC technologies
      - Multi-storey cropping system
      - Multiple-cropping
      - Communal reforestation
      - On-farm reforestation
      - Organic farming
      - Seedling Production and Farm Forest Development

d. Training Skills

- o Technical and CO training for technician conducted by staff
- o Technical and CO training for farmers conducted by 11 farmer-trainor

6. *Project Staff Strength*

a. Capabilities/Experiences

- o Project Management/Project Planning; Nursery Management/Seedling Production; Enterprise Development Community Organizi Nursery Management/Seedling Production

b. Number

- o 4

7. *Other Information*

a. Linkages

- o DOH, Passi; LBP, Iloilo; UPLB IESAM; DA, Passi; FEBTC, Passi; Municipality of Passi; DENR; FAO-TSSARD; USAID

b. Major Crops

- o Coffee
- o Vegetable crops - squash, ampalaya
- o Corn

PROFILE PROFILE

1. *Name of Project* TAGUBONG AGROFORESTRY PROJECT

2. *Location* (Please include direction in getting to the area; preferably a sketch map)

   - 18 kms from the Municipality of Passi, appoximately 81 kms from Ililio Cit, and 8 kms by foot trails from Magdungao AF Project.

3. *Contact Persons*

   - Renato Pacardo - Board Chairman, TAAFAI, Tagubong, Passi, Iloilo
   - Mario Hector Calambro- Project Manager, Tagubong AF Project
   - Leinlanie Divinagracia- BKFI, Iloilo City

4. *Farmer Organization(s)*

   - Tagubong-Agbariri Agroforestry Farmers Association Inc.

5. *Training Profile*

   a. No. of Farmer Trainors - 7

   b. Facilities

      - Staff house
      - Training hall
      - Nursery building
      - Water impoundments
      - Tool house

   c. Upland Technology existing on the site

      - Soil and water conservation
      - SWC
      - bio-intensive gardening
      - multi-cropping scheme
      - aquapond
      - livestock integration
      - seedling propagation

   d. Training Materials Available

6. *Project Stafff Strength*

a. Capabilities/Experiences

- o Community Organizing/Community Development
- o Technology Training/Agroforestry/SWC
- o Project Management, Planning & Supervision
- o Rapid Rural Appraisal
- o Monitoring & Evaluation
- o Process Documentation
- o Poultry and Livestock Management
- o Seedling Production/Management

b. Number - 3

7. *Other Information*

PROJECT PROFILE

1. *Name of Project*: Jose Panganiban Agroforestry Project

2. *Location*: Barangays San Isidro, Sta. Cruz and San Pedro
Jose Panganiban, Camarines Norte

Distance from the nearest all-weather road: 300 m.
Travel time to site from road: 10 minutes

3. *Contact Persons*: Mr. Eduardo V. Aquilar
JPAP Training Coordinator
San Pedro Nursery, Jose Panganiban,
or BURDFI Office, Magallanes Ilaod
Daet, Camarines Norte

4. *Farmer Organization(s)*

1. United Farmers' Multi-Purpose Cooperative (30 members)
2. Sta. Cruz Multi-Purpose Cooperative (20 members)
3. Alawihiw Farmers' Association (21 members)
4. Bagong Silang II Farmers' Association (20 members)
5. Pinagkaisahan Farmers' Association (23 members)
6. (6 other farmers' associations)

5. *Training Profile*

a. No. of Farmer Trainors: 11

b. Facilities

Training and dormitory facilities with a capacity of 50 persons; Project Staffhouse/office and day care center

c. Upland technologies existing in the site

Multiple cropping; SALT; Aquaculture; Reforestation; Crop-livestock integration

d. Training materials available: SALT; CO/CD; Livestock production

6. *Project Staff Strength*

a. Capabilities: Developing project counterparting scheme
Dispersal schemes
Project design and packaging
Community organizing
Trainors' training
RRP. KFP
Plantation establishment and maintenance

b. Number: 4

7. *Other Information*

Core organization is composed of farmers and former DENR staff. It is already implementing contract reforestation projects outside the site. It also conducts RRA and farmer training for other ISFP projects.

PROJECT PROFILE

1. *Name of Project*: Ayungon Agroforestry Project

2. *Location*: Barangay Tibyawan
Ayungon, Negros Oriental

Distance of site from nearest all-weather road: 5 km.
Travel time from road to site: 15 minutes

3. *Contact Person*: Mr. Mario Aragon
Project Manager, Ayungon
C/O DENR Region 8, Cebu City

4. *Farmer Organization(s)*: Ayungon Upland Farmers' Association

5. *Training Profile*

a. No. of Farmer Trainors: 7

b. Facilities: Staffhouse and Multi-purpose Center

c. Upland technologies existing in the site

SWC; diversified farming; aquaponds; communal refo.

d. Training materials available

SWC; communal refo. technologies; CO; trainor's trng.

6. *Project Staff Strength*

a. Capabilities

Site trainings and demonstrations on SALT; sub-nursery activities; CO; crop-animal integration

b. Number: 4

7. *Other Information*:

PROJECT PROFILE

1. *Name of Project*: Babatngon Agroforestry project

2. *Location*: Barangays Naga-asan, Pagsulhugon, Bagong Silang, Gov. Jaro, San Agustin, Taguite, Malibago Babatngon, Leyte

   Distance of site from all-weather road: 16 km.
   Travel time from site to road: 1-2 hours

3. *Contact Person*: Mr. Emmanual Tan
   Project Manager
   C/O DENR Region 8
   Tacloban City

4. *Farmer Organization*: 4 registered Farmers Cooperatives

   Naga-asan-Malibago Farmers' Association (NAMFA)
   Pagsulhugan Upland Farmers' Association (PUFA)
   Babatngon Farmers Developers' Asoociation (BFDA)
   San Agustine Upland Farmers' Association (SAUFA)

5. *Training Profile*

   a. No. of Farmer Trainors: 7

   b. Facilities: Farmers Training Center with 20-25 capacity

   c. Upland technologies existing in the site

      Communal refo
      Integrated SWC-organic fertilizer cropping system
      Hedgerows combining Indigenous species and cover crops
      Agroforestry-livestock integration

   d. Training materials available

      Materials/on farmer's field demo on above technologies

6. *Project Staff Strength*

   a. Capabilities

   Extension community program planning; CO; trainors' training in agroforestry; nursery operations and plantation management; communal refo; integrated crop-livestock production

   b. Number: 4

7. *Other Information:*

1. The site is used as ISFP training site.

2. Farmers Organizations are affiliated with Eastern Visayas Resource Development Foundation.

PROJECT PROFILE

1. *Name of Project*: Candijay Mangrove Rehabilitation Project

2. *Location*:

3. *Contact Persons*: Mr. Mario Mago
   Project Manager, Candijay
   C/O ACIPHIL, Cebu City

4. *Farmer Organization(s)*: Fishermen's Association registered

5. *Training Profile*

   a. No. of Farmer Trainors: 10

   b. Facilities: Project Office and Multi-purpose Building

   c. Upland technologies existing in the site

   d. Training materials available

6. *Project Staff Strength*

   a. Capabilities

   b. Number: 5

7. *Other Information*

   Used as Practicum Area for Fisheries students

PROJECT PROFILE

1. *Name of Project*: Sogod Agroforestry Project

2. *Location*:

3. *Contact Persons*: Mr. Romeo Base
   Project Manager, Sogod
   C/O CARE Philippines, Cebu Office

4. *Farmer Organizations*: 12 registered farmers' organizations

5. *Training Profile*

   a. No. of Farmer Trainors: none

   b. Facilities: none

   c. Upland technologies existing in the site

   d. Training materials available

6. *Project Staff Strength*

   a. Capabilities

   b. Number

7. *Other Information*

PROJECT PROFILE

1. *Name of Project*: Canlaon Buffer Zone Agroforestry Project

2. *Location*: Barangay Biak-na-bato, Canlaon, Negros Occidental

3. *Contact Person*: Mr. Andrei Untal
   Project Manager, Canlaon
   C/O DENR Region 6, Iloilo City

4. *Farmer Organization*: Rainfed Resources Upland Farmers Federation, Inc.

5. *Training Profile*

   a. No. of Farmer Trainors: 7

   b. Facilities: Staff House

   c. Upland technologies existing in the site

   d. Training materials available

6. *Project Staff Strength*

   a. Capabilities

   b. Number: 4

7. *Other Information*

APPENDIX B

PARTICIPATORY RAPID RURAL APPRAISAL RESULTS FOR AGROFORESTRY PROJECTS

RAPID RURAL APPRAISAL FORM FOR RRDP AGROFORESTRY EVALUATION

A. OBJECTIVES

1. To assess the stage of development of the agroforestry project;
2. Identify key intervention strategies (social, technical, institutional), process and inputs that work toward attainment of RRDP Agroforestry Objectives;
3. Identify follow-on activities needed for the agroforestry project beyond RRDP;
4. Generate lessons on the design, planning and implementation of a sustainable agroforestry project;
5. Generate reliable indicators for properly assessing performance of agroforestry projects; and
6. Identify possible technical institutional and policy implications of findings from the evaluation to relevant national projects such as Integrated Social Forestry (ISF), Community Forestry Program (CFP) and others.

B. HINTS IN CONDUCTING THE RAPID RURAL APPRAISAL FOR AGROFORESTRY PROJECT EVALUATION

1. Evaluation should be conducted by project staff together with representatives from the Farmer Organization in the Project Area.

   Note: Both groups should sign the results of the Rapid Rural Appraisal Results

2. Prior to the conduct of the Rapid Rural Appraisal, the procedure should be explained to the team by the RRDP Evaluation Coordinator. The teams can modify or add key areas as long as this will reinforce attainment of project evaluation objectives.

3. Guide questions should be translated into local dialect.

4. Name of key informants covered by the Rapid Rural Appraisal should be indicated in the report.

5. Key informant should cover the most advanced as well as the less developed agroforestry farms and households in the project area.

   Note: Rapid Rural Appraisal should indicate the dominant types of farmers or households in the site compared to key informants covered by the rapid rural appraisal.

6. Results of the rapid rural appraisal should be validated with the community in an assembly meeting.

7. These validated results including raw data should be brought by the project manager to a regional RRDP evaluation meeting.

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KEY AREAS/QUESTIONS

A. INPUTS

1. The Project Site

What were the issues related to the agroforestry project site encountered? How were these resolved? What issues remained unresolved? Why?

2. The Project Staff

What ideal qualifications should be looked for in agroforestry staff? How should staff be evaluated? What kind (in terms of expertise) and how many staff is needed for the project? Why?

3. Project Funding

What outstanding issues and problems were encountered during project implementation? How were these resolved? What issues remained unresolved? Why?

4. Farm Participation

- If you were to indicate the five (5) most important strategies that promoted farmer participation in the project, what are these?

- In what phases of the project cycle were farmer participation important? What are the most effective means of farmer participation?

5. Community Participation

What were the five (5) most important strategies of promoting community participation? What are the forms of community participation?

6. Upland Technology

- Indicate the five (5) most well adopted upland technology in the agroforestry project site? Why were these technology were adopted?

- How were these technology extended to project participants?

- What were the impacts of these technology (income, environmental, others)?

Note: Please quantify before and after project if you can.

- What percentage of increased income for the household could

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you attribute directly to agroforestry technology or agroforestry farm productivity?

7. Institutional Linkages

What were the most effective institutional linkages that were formed in support of agroforestry? How did it come about? What resulted from it? What other institutional linkages needs to be formed? Why?

8. Tenure

o What were the most effective tenurial arrangement develop in the project area? How did it come about?

o What other forms of tenurial arrangements need to be developed? Why?

B. OUTPUTS

1. Farm Development

What enhanced farm development? Why? What are the most effective indicators for farm development? Why?

2. Participation of Farmers

What are good indicators of farmer participation? When did it come about? Why?

3. Household Income

o How much increased (in percentage) on household income can be attributed to agroforestry farm development? From other sources?

Note: Indicate base year or reference period.

o What component of the agroforestry project provided the highest increase yield and income? Why?

4. Environmental Protection

o Did the agroforesty project effectively decreased destructive activities such as illegal logging, burning, dynamite fishing and others? Why?

o Were there changes in land use in the area? What kind of changes? Why?

5. Other Outputs

- o What happened with the livestock dispersal component of the project? Why? What else needs to be done to make it effective? Why?

- o What about the revolving funds? How can its administration and management be improved? Why?

- o How about the cross-farm visits? How can it be improved? Why?

C. FOLLOW-ON

1. What is the present status of the project. What else needs to be done after RRDP? Why? How can it be implemented?

2. Can you expand the present project to cover a wider area and more participants? Why? How? When?

3. What lessons of the RRDP Agroforestry Project will be most relevant to:

   - o ISFP
   - o CFP

MASARAGA AGROFORESTRY PROJECT

I THE PROCESS

The Participatory Rapid Rural Appraisal was conducted by the staff of the Bicol University Development Foundation Inc. (BUDFI) using an assembly meeting. It was attended by 14 farmer members and leaders of the Masaraga Agroforestry Farmers Association, Inc. The group was made up of the President, Vice-President, Board of Directors, Trainor group and five others considered as less active members.

II RESULTS

A. Inputs

1. The Project Site

a) Land Classification - the project site falls under A&D which doesn't fit the DENR criteria on site selection which should be Timberland. However, USAID conducted evaluation of the area and found out that there are no permanent households in the Timberland area and since they prefer a community, the proposed project site which are covered by Barangay Balogo and Bosay in A&D land was approved.

b) Accessibility - prior to project implementation, one of the problems of the residents is accessibility. Sometime in 1980, a team of treasure hunters of Yamasita Gold constructed a dirt road which traversed Barangay Balogo. This somehow eased transport of farm products. Upon operation of the project, culverts and subsidiary trails were constructed. This improved mobility inside the project.

c) There was no problem on the bio-physical aspect of the project site with regards to the application of priority technology which is SWC.

2. The Project Staff

Ideal qualifications of agroforestry staff are the following:

a) community oriented - one who works with the farmers, eat with the farmers, drink with the farmers and go with the farmers
b) honest
c) single and hardworking
d) technically capable

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Staff evaluation may be based on his accomplishment (target vs actual), and the way he deals with farmers or the degree of rapport with farmers.

Staff needed by the project in terms of expertise are agriculture graduate (crops and animal science), sociologist, agroforestry graduate, clerk/typist and nursery man. The project needs only 5 staff. This will mean effective implementation compared to plenty of staff but not well coordinated.

3. Project Funding

Issues raised were the following:

a) Limited fund of the contractor - BUDFI shoulders only salary of employees during delayed fund releases from DENR. This results to delayed implementation of targeted activities except for those activities which the staff can finance out of their own pockets or initiative/or sometimes farmers are just informed that payment will be delayed. Likewise, some inputs are not extended anymore because these are not already in season. Also technical assistance such as tapping of resource persons with expertise are not done because of lack of funds for honorarium.

b) Releases of fund - BUDFI prefers Cash Advance to Reimbursement Scheme but takes time liquidating the CA because of limited information on the process. The MAF Project Manager suggested the submission of partial liquidation but the management ignored the suggestion. This resulted in delayed implementation of targeted activities for BUDFI cannot avail of another Cash Advance unless first CA was liquidated. So BUDFI resorted to reimbursement scheme.

c) BUDFI is lax in management - the management relied too much only on the suggestions of field staff as to preparation of reports, forwarding of reports, use of the Work and Financial Plan and project implementation.

4. Farmer Participation

The following strategies promoted farmer participation:

a) give examples of successful experiences/farms regarding the technologies being introduced;
b) involve farmers in the planning and actual implementation of farm activities;
c) send farmers for cross-visit to other farms;
d) give incentives to farmers with successful farms; and
e) coordination with other agencies.

Farmer participation is important from planning to implementation and evaluation of the project. If they are involved in the planning process, targeted activities are easy to accomplish.

5. Community Participation

The most important strategies that encouraged community participation are the following:

a) introduction of new technology;
b) dispersal of work animals;
c) employment of farmers;
d) provide education/additional knowledge on farming;
e) increase of income from farm produce; and
f) improvement of soil fertility.

The following are the forms of community participation:

a) facilitate conduct of trainings; and
b) formation of an association; bayanihan works on demonstration farms by the members of the association.

6. Upland Technology

The adopted technology in the area are contouring, multiple cropping, aquaculture, and hedgerow composting. Continues adoption may be attributed to increase production from the application of new technology on their crops raised (corn and vegetable).

These technologies were extended to the farmers through conduct of trainings; cross-farm visit; constant meetings, discussions among staff and farmers or among farmers about the modern farming in upland areas; and the result of increased yield of early adaptors causes other farmers to adopt new technologies. There is an increase of 20-40% in income from farming.

7. Institutional Linkages

The Masaraga Agroforestry Farmers Association, Incorporated composed of 180 farmers was registered with the Securities and Exchange Commission. No tangible linkage yet with other government agencies was established. However, BUCA maintains the project by fielding one staff to monitor activities of the trainors group, the MAFAI and farmers. BUCA arranged farmers trainings which the Farmers Trainors facilitate such as the recently conducted SWC trainings for ISF farmers from CENRO Naga and Catanduanes.

8. Tenure

The following were the issues:

a) Ownership of land - most of the areas are owned by big landlord that farmers have no proof of ownership inspite of the fact that they are potential beneficiaries of DAR's Operation Land Transfer. The staff coordinated with DAR and Certificate of Land Transfer were issued.

b) Confiscation of Farms - since the farms were under CLT, farmers were hesitant to further their development because of fear that once the area were fully developed the government will get back the land. The staff facilitated a dialogue between the farmers and DAR to clarify the issue.

B. Outputs

1. Farm Development

Farm development is enhanced through the following strategies:

a) continues information drive by staff either through conduct of meetings, dialoques and visit to farms of the cooperators;

b) conduct of cross-visit encouraged adoption of technologies satisfying the farmers attitude of "to see is to believe";

c) establishment of demonstration farm; and

d) interest of farmers to improve and increase their produce.

Indicators of farm development are the following:

a) adoption of technology by farmer cooperators - the presence of contour and new crops being raised indicate acceptance of the technology;

b) diversified farming - before, farmers practice monocropping of corn and plant it once a year only. Now after harvesting of corn, other crops are planted resulting to increase in income and continues income throughout the year;

c) use of organic fertilizer - farmers use the leaves of hedgerows as fertilizer (compost); and

d) burning/slash and burn practice is minimized - farmers

learned that by burning, nitrogen is lost and that leaves may be used as fertilizer.

2. Participation of Farmers

The following are good indicators of farmers participation:

a) active in attending meeting/participate in discussions;

b) have organized themselves into an organization called Masaraga Agroforestry Farmers Association, Inc;

c) formation of a Farmers Trainors Group and Catering Group; conducted trainings for 40 ISF farmers from Catanduanes; 32 farmers from and NGO of Sorsogon; 30 farmers of Simon and Cyrene from Daraga, Albay; 25 farmers from Micro-Planners; 500 students of BUCA and ISF farmers from Manaet, Albay and CENRO Naga;

d) farmers of adjacent barangays hire services of farmer-adoptors to construct SWC on their farms; and

e) they practice bayanihan and get involve in community activities.

Active community involvement was felt on the latter part of the project duration when tangible impact (such as increased production and income of farmer cooperators) was realized.

3. Household Income

Adopted Methodology	Area (ha)	Income Before (₱)	Income After Adoption (₱)	Name of Farmer
1. Aquaculture	8	84,000 (7,000 fingerlings @ ₱12.00/100	7,000 fingerlings @30.00/100 ₱210,000	Salvador R. Revilla
2. Multiple Cropping (Coconut or base crop)				Bernardo Perez
a) Peanut/legume	2			
b) Vegetables (squash, sitao)	5	4,000/mo	12,000 (300 bundles @5.00/bundle per wk at 4 wks)	
c) Abaca				
d) Cereals (corn)	1.5	4,500 (30 cans @ kg/can @ ₱3.00/kg	13,200 (66 cans @ 50 kg/can @ 4.00)	
e) Fruit trees				
f) Trees (forest)				
3. Animal Dispersal	1 head	none	7 heads @ 500/head 3,500 (if it will be sold)	Abraham Mirabuena
4. Hedgerow-based Farming	1.7	7 bags @ 300/bag ₱2,100	17 bags @ 300/bag = ₱5,100	Nelson Remigio
5. Nursery	0.6	none	100 balimbing @30.00 = 3,000 3,000 budded @5.00 = 40,000 700 grafted santol + 100 mango @20.00/pc = 16,000	Jose Culaway, Jr.

4. Environmental Protection

There is a decrease in destructive activities such as illegal logging and burning. Farmer cooperators understand the bad effect of forest denudation and burning. Burning in their farms will also damage their hedgerows.

There are changes in land use such as:

a) from cogonal to areas with SWC structures such as hedgerows;
b) from monocropping to diversified farming; and
c) from abandoned area to cultivated area.

5. Other Outputs

a) Livestock Dispersal Program - the project started with 9 heads of goat and 11 heads of carabao (work animals). At present the goat is already 50 heads dispersed to 27 farmers (out of the initial 9 farmers) while out of the 11 heads of carabao it is now 14 benefiting 3 more farmers. To assure continues success of the dispersal program, strict regulations may be included in the scheme to facilitate immediate transfer of the dispersal to next beneficiary.

b) The revolving fund of the association is used in income generating projects. To ensure proper management, continues supervision should be extended by the project staff until the officers have installed their financial system. The association should be strengthened in terms of financial capability so as to be able to extend support services to the members.

c) Cross-farm visit motivates farmers to adopt the successful technologies they have seen. Likewise, this activity enhance camaraderie among farmers and staff resulting to farmers participation. It will be more rewarding if participants in the cross visits are key farmers or potential farmers who have inclination or interest on farming and not just mere curiosity or taking advantage of the pleasure of the trip.

III FOLLOW-ON

A. Status of the Project

The Masaraga Agroforestry Project was terminated on December 31, 1990 as DENR-USAID funded project. However, the Bicol University College of Agriculture (BUCA) continued her technical assistance by fielding one of its staff to monitor and assist the members of the Masaraga Agroforestry Farmers Association, Inc. (MAFAI). MAFAI is registered with the Securities and Exchange Commission with 180 members.

The total project area covers 270 hectares located in Barangays Balogo and Bosay. A total of 33 workgroups were organized who handle the different farm activities. The Trainors Group and Catering Group of the Masaraga Agroforestry Project, composed of 17 farmers, facilitate trainings for the farmers of ISF and DA. They serve as speakers and caterers.

The project site also serves as laboratory of students (both undergraduate and graduate) and as an extension service center of the college and university in upland agriculture and watershed areas.

Other Needs after RRDP

1. Infrastructure Development - about 10 kilometers dirt road need to be improved. The present condition results to high hauling cost of farm produce to market.

2. Post Harvest Facility - such as multipurpose dryer and storage facility to avoid spoilage of farm produce when the condition is unfavorable.

3. Marketing Assistance - a marketing arm should be put up to eliminate middlemen who take advantage during peak season.

4. Credit Facility - farmers/association should have access to formal lending institution.

5. Training Facilities - to further develop the farmers trainors group and extend their services, facilities should be put up. The farmer to farmer approach of extension will speed up technology transfer within the nearby communities.

6. Provision of farm inputs, farm tools and equipment and work animals - farmers however interested to try new technologies may not be able to afford the required farm needs.

These are important needs of the farmers to attain sustainability. An extension of financial and technical support from the DENR or any funding agency are factors needed to reach this goal. This may be done through contract with BU or the farmers association (MAFAI).

B. Expansion of the Project

There are opportunities for a wider project area and more participants. Farmers from adjacent barangay are joining the project. Others have hired services of farmers who are technically capable on SALT. As observed by the members of the MAFAI, the impact of their SWC structures is insignificant compared with the rate of destruction of the watershed on the adjacent area.

Project expansion may be done in coordination with the different barangay officials. Information drive may be done by project staff, farmer trainors and other farmer cooperators of the project.

C. Lessons from RRDP Agroforestry Project Relevant to ISFP/CFP

1. That agroforestry is not a panacea to farmers. It only needs a follow-up or a concrete example to remind them of the technology.

2. That community participation is most important in planning and implementation.

3. That transparency in the project (WFP, Implementation, etc.) is necessary.

4. That project staff must have a strong commitment in the implementation of the project.

IV STRENGTHS THAT COULD BE SHARED

A. Staff Strength (Expertise)

CO - Four (4) of the staff members combined together their technical and CO expertise or skills in community organizing.

Technical - the members of the staff have different/varied technical expertise on preparation, to wit:

a) Agronomist with postharvest training
b) Horticulturist/Postharvest
c) Agricultural Engineer
d) Development Communication/Planning
e) Sociologist
f) Plant propagation and nursery management
g) Agroforestry

Organizational - Farmer/beneficiaries were not told to organize but they were encouraged by simply reminding their needs and letting them feel to get organize.

Extension - Dialogue with farmers became often and open to know some problems which served as an entry point for some extension activities. Practically all the staff performed extension work.

Linkaging - Upon knowing the problems, linkage with the different agencies (government and non-government) was done either on an office to office or through personal contact with the office concern.

B. Technology Showcase

1. Multiple cropping
2. Hedgerow based farming system
3. Contour farming
4. Tree planting (forest trees and fruit trees)
5. Aquapond
6. Plant Propagation and Nursery Establishment and Management
7. HRD
8. Crop-Livestock Integration in Agroforestry
9. Postharvest Technology (village level)

C. Training

Facilities - bunkhouse (30-40 pesos), nursery (main and satellite nursery), practicum area, demo farm, established/ developed farmers farm, graded trails, A-I watersupply and accessible roads.

Types of Training

1. Farmers
2. Technicians
3. Student (undergraduate and graduate)
4. Extension officers
5. Livelihood training

D. Farmer's Organization

Type and strength - It's an association registered with the SEC with 32 workgroups and 180 members.

E. Power Strategies

Market - only crops with available market are recommended.

Revolving fund generation - share from contracting activities, from the corn sheller, catering and training, memberships and dues.

Transparency on the WFP and participation or involvement of farmers in planning as well as implementation.

F. Agroforestry Training Manual Available

1. RRDP-DENR Agroforesty Training Manual
2. ICRAF - Agroforestry Today
3. Multiple Cropping Systems Manual
4. Extension Education, PCV Publication
5. Organic farming Training Manual
6. IIRR - Regenerative Technology
7. Agroforestry Information Kit
8. Journals
9. Personal collection/clippings

CANDIJAY MANGROVE AGROFORESTRY PROJECT

I. PROCESS

Results of the PRRA presented in the regional consultation workshop were mainly recall of information as presented by the Contractors Technical Consultants.

II. RESULTS

Coqtonq Bay

Water Area	-	10,000 ha
Deeper	-	5,000
Shallow	-	3,000
Mangrove	-	2,000
Trees	-	1,000
Fishpond	-	1,000

Two (2) municipalities
Fourteen (14) mangrove barangays

	Target	Accomplishment
Barangay Organized	8	11
FA Formed	8	13
FA Obtained Credit	0	5
Mangrove		
o Rehab and Refo	400	307
- Refo		150
- Enrichment		130
- Rehab		27
o Protection	0	1000
o Stop illegal fish-pond devt	0	>100
o Wilderness Mgmt	yes	maybe
o AR Clusters (25)	80	44
o Oyster & Mussel plots	40	37
o Control Illegal Fishing	yes	yes
o Training		
- Small group	0	8
- BSF students	0	5

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Key Strategies

- o Fishermen are managers
- o Technologies that work

Staff

- o Committed
- o Live in barangay
- o Relate well
- o Initiative

Lessons

1. Validation of CVRP
   - o People willing to conserve and manage
   - o Will volunteer labor
   - o Tenure is important
   - o Dynamite fishing can be controlled
2. Illegal fishpond development can be controlled
3. Demand for training

III. FOLLOW-ON

1. Mangrove Development Project Model
   - Expansion of area
   - 5-Year development program
   - Use of site as straining venue
2. Bridge financing needed

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CANLAON AGROFORESTRY BUFFER ZONE PROJECT

I PROCESS

The PRRA was conducted by the staff in a workshop type of meeting attended by 28 farmers.

II RESULTS

A. Inputs

1. The Project Site

- o National Park
- o Landlord/Tenant System
- o Illegal logging and kaingin farming
- o Consultation with Park superintendent, input to IPAS
- o Priority to actual farmer cultivator
- o Community forest protection scheme (participants)
  - Civilian volunteers forest guard
- o Agroforestry/SWC training

2. Project Staff

- o Willing to work with people (grassroots)
- o Knowledge in related fields
- o Five (5) staff
  - Three (3) Technical (Forester, Agri-related field)

3. Project Funding

- o Delayed in fund releases - NGAs, ASAs and processing in the RO

4. Farmer participation

- o Get the farmers visualize the goals of project/ results after 2-3 years
- o Training - learn with them

5. Community Participation

- o Initial project implementation - waning stage
- o Convincing illegal loggers to stop their activities
- o Apprehending illegal loggers - intelligence network

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6. Upland Technology

- o Contour hedgerows/rockwall
- o Forage purposes and practicality of technique
- o Abundance of Rocks

7. Institutional Linkages

- o Training - project site as venue for ISF training
- o Forest protection - coordination with CENRO and Provincial Government
- o Inputs in IPAS initial consultation

8. Tenurial system

- o Proposed - Develop and issuance (ISFP)

B. Outputs

1. Farm Development

- o Maintenance sustain
- o Expand
- o Disseminate

2. Participation of farmers

- o Conduct their own community activities (meetings, alayon)
- o Accomplish project activities involving community
- o Conduct activity avoided by them before

3. Environmental Protection

- o Decreased occurrence of illegal logging
- o Increased conflicts with CAFGU's; later diffused through dialoques

4. Other Outputs

- o Dispersal

III FOLLOW-ON

- o Expansion to other portions of national park
- o Community forest protection
- o Contract reforestation

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MARILOG AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted through actual interview with five (5) key farmer leaders by five (5) extension officers. It was also based on information gathered by the project during the last 2 years and from discussions conducted during trainings and meetings.

II RESULTS

A. Inputs

1. The Project Site Issues

- Many of the upland farmers as of the middle of 1988 in Barangay Marilog were unconcerned on the need to stop illegal logging. They too were unconcerned on the need to reforest denuded uplands.

- During the same period, many of the conditions stipulated in the Certificate of Stewardship Contract were violated.

- Accepted farm technology, including the various soil and water conservation strategies initiated by the Department of Agriculture, need reorientation and follow through.

- Promotion of economic and social activities to draw families of individualistic farmers into the mainstream of total community involvement and participation.

Partly, the 4 issues were resolved during the period of RRDP implementation in sitios Crossing "S", Balite, Pamuhatan and West Marahan.

Issue A: In the aspect of illegal logging, while the perpetrators are made more aware now of the bad effects of indiscriminate cutting of forest trees this activity continues to go on following the saying "might is right". Persons engaged in illegal logging have the guns, the money and powerful connections.

In the aspect of reforestation, RRDP has greatly conditioned the minds of the farmers to become conscious on the need to reforest denuded lands. Ideas acquired from farmer trainings found actualization in the undertaking of reforestation and the assisted natural regeneration activities. The implementation in the field of another DENR reforestation undertaking involving the participation of barangay leaders as contractors has in many ways helped the upland communities become more aware on the need to reforest

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denuded lands. However, the reforestation handled by the local leaders focused in a single-approach strategy, that is, tree planting only. Whereas in the RRDP, tree planting is just one among several activities.

Issuse B, C and D: partly resolved which can be further given solutions if implementation period of three years would have been extended to another five years.

2. Project Staff

a) Qualifications for Agroforesty Staff

- Graduate in Bachelor of Science in Agriculture, Forestry and other related courses;
- Can speak the dialect understood by the majority of the farmers served;
- Preferably, but not necessary, those with at least one year experience in related works; and
- Willing to stay in the area of work.

b) Staff Evaluation

Recruitment

- Submission of letter of application supported with bio-data and school's transcript of records;
- General Aptitude Test;
- Panel Interview;
- On-the-job training; and
- Management decision and selection.

Employment

- Three month probationary period of employment;
- Performance appraisal
- Management decision and selection;
- Regular employment; and
- Execution of employment contract.

c) Number of persons needed in the project

Employment should fill up two operational needs, namely: Administrative Operations and Field Operations. The number of persons to be employed depends on the project area coverage and activity loads.

3. Project Funding

Issues and problems met during the project implementation

- Delayed (in rare instance) fund release from USAID to SELF due to delayed receipt by the former of project accomplishment reports from FASPO.

3:7

4. Farmer Participation

a) Five most important strategies that promoted farmer participation

- o Intensive education through series of farmer trainings and cross farm visits;
- o Constant follow up by RRDP extension officers;
- o Extension officers staying at project sites;
- o Formation of RRDP farmer's association in each covered site and conduct of regular meetings by the association; and
- o Provision of incentive funds.

b) Phases of project cycle where farmer participation was important

- o Consultation meetings during community preparations;
- o Farmer trainings;
- o Implementation of the various field activities; and
- o Project evaluation and monitoring.

c) Effective means of farmer participation

- o Physical attendance to trainings and community meetings;
- o Farmers seeking clarification on project issues;
- o Farmers presenting suggestions and ideas;
- o Actual adoption of recommended technology as: planting of permanent trees, tree caring and maintenance, contour farming, etc.
- o Joining farmer cooperatives.

5. Community Participation

a) Five most important strategies of promoting community participation

- o Intensive education through series of farmer trainings and cross farm visits;
- o Intensive education through series of trainings
- o Constant follow up by RRDP extension officers;
- o Extension officers staying at project sites;
- o Formation of RRDP farmer's association in each covered site and conduct of regular meetings by the association; and
- o Provision of incentive funds.

b) Forms of Community Participation

- o Joining fellow farmers in implementing programs and projects for the welfare of the whole community;
- o Joining fellow farmers in association membership; and
- o Performing functions in accordance with agreements

promulgated by his organization.

6. Upland Technology

a) Five most well adopted upland technology in agroforestry project site

- o Hedgerow establishment as soil conservation technique
- o Planting of permanent trees as soil and water conservation technique;
- o Seed selection (open pollinated corn, improved cacao and coffee variety, etc.);
- o Nursery management; and
- o Formation of farmer cooperatives (4 cooperatives, 2 of which were RRDP initiated).

b) They are well adopted because the farmers feel they can derive benefits from them.

c) This kind of technology was cross farm visits extended to the farmers first during the trainings, demonstrating to them and letting them apply.

d) Technology impacts

Due to the short period (from the time of actual adoption by the farmers to the time of assessment) the effects of this technology cannot be logically determined. Exception, however, to this limitation is the seed selection through which the farmer-adoptors in Crossing "S" were blessed with bountiful harvest in July and August 1991.

e) Increased income of household was temporary as it occurred only during payment of incentive funds. Income obtained from farm harvest has been adversely affected by a marketing practice where the middlemen-buyer is the party telling the price.

7. Institutional linkages

a) Effective institutional support linkages to agroforestry

- o health programs (IPHD-Davao Medical School Foundation, DOH)
- o Nutrition Programs (DA, DSWD, DOH)
- o Farmer cooperatives (DA, CDA)
- o Cottage industries (DOT)

b) These linkages were formed by proposing to concerned institutions, followed by conferences. These inter-agency activities are needed by SELF to accomplish the items incorporates in the Work and Financial Plan such as home management, cooperative organization and

acceleration of 4-H Club.

8. Tenure

a) Effective tenural arrangement developed in the project area

Certificate of Stewardship Contract as a document of landholding under the Integrated Social Forestry Program was introduced by DENR before the RRDP implementation in the area. Apparently, compliance by the CSC holders with ISFP regulation has been enhanced by RRDP implementation.

b) CSC is effective tenurial arrangement in areas with slopes of 18% and above prevailing. On the other hand, in the uplands where the terrain is relatively plain, issuance of land title may be considered by DENR.

B. OUTPUTS

1. Farm Development

a) Factors that enhanced farm development

- o Potential for commercial production;
- o Area receptive to crop production;
- o Proximity to center of population;
- o Existence of farm-to-market roads; and
- o Farmers receptive to acceptable farm practices.

b) Indicators of farm development

- o Presence of soil and water conservation technology;
- o Where applicable, use by the farmers of organic and inorganic fertilizers;
- o Farmers adopting acceptable farm practices.

2. Indicators of farm participation

- o Attendance in farmer trainings;
- o Contributing ideas in the discussion of issues;

3. Household Income

a) Increased in household income of Marilog Agroforestry farmers cannot be determined yet due to the absence of post project data.

b) Component in agroforestry that provided the highest income

Farm development ought to be the source of highest income but the project area has been subjected to typhoons, thrice, in the duration of RRDP

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implementation and drought every year. Despite the weather, the farmers were still able to harvest vegetable crops. Price at farm level, however, is controlled by the middleman-buyers.

Considering the aforementioned negative factors, the incentive funds from reforestation and ANR activities were the sources of farmers income.

4. Environmental Protection

a) The agroforestry project did not significantly reduce illegal logging and kaingin activities. A three-year implementation period is too short and that the farmers were deeply concentrated in accomplishing programmed RRDP activities.

b) There is change in land use: from fire hazard grassland to reforested upland.

5. Other Outputs

a) The livestock, goats and few ducks, is alright but the farmers prefer working animals.

b) The 15% that the respective RRDP farmers associations in the four sites retained as revolving fund out of individual farmer incentive pay are used as: 1) investment in the farmer cooperatives; 2) aid to community projects; and 3) source of emergency financial assistance to farmers' family.

c) Administration and management of the revolving fund could be done by using it in the cooperative activities.

d) Cross-farm visit can be improved by properly selecting the places to be visited on the basis of farmers' interest.

III FOLLOW-ON

The Marilog Agroforestry Project is up for termination by September 30, 1991. A three-year implementation period is too short to realize significant impacts. It is the eco-social-cultural result we are after most.

The following still have to be done

a) Accelerating the marketing machineries of the four cooperative organizations in sitios Crossing "S", Balite, Pamuhatan and West Marahan are RRDP-initiated farmer cooperatives.

b) Mass production and marketing flamengia, crotolaria, gmelina, gliricidia and leucaena and the open pollinated corn seeds which could be harvested from RRDP plantation.

c) Putting up of tiger grass plantations either as contour hedgerows or as a distinct parcel of land devoted to their culture. The tassels of tiger grass are made into brooms.

d) Production and marketing of vegetables and other cash crops along with the continued adoption of soil conservation techniques.

e) Conduct of periodic ISFP trainings among holders of CSC and insure continued application of stipulated CSC agreements.

f) Continued institutional linkages.

2. The present project can still be expanded to cover wider area and more participants. This should be done to introduce economic and socio-cultural realities in the uplands.

V. LESSONS FOR ISFP, CFP, ETC.

1. Series of community consultations should precede site selection and actual project implementation.

2. It is helpful if discussions during community assemblies are presented in audio-visual aids such as blackboards, flip charts, flannel boards, slide, etc.

3. Valid suggestions of farmers during community assembly should be incorporated in the project.

4. Up to certain point, farmers should know project costing and how much will go to them. This way will make them comfortable.

5. Contracting institution should adopt recruitment system that emphasize, among others, proficiency in working with upland farmers.

6. Project extension officers should spend at least 85% of their time staying in the project area.

7. Coordination and consultation among contracting parties in a project sitio or barangay undertaking DENR forest rehabilitation must be made prior to actual project implementation (projects introduced in the site).

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8. Implementation period of three years is not sufficient for the farmers to realize significant farm income. A five year period may just be enough.

9. Contracting institutions should have fallback mechanism that in case of delay in fund release, alternative sources may be tapped to keep activities going.

10 Farmers are easily convinced to participate in a forestry project if financial incentives are provided.

11. Revolving funds be put up by farmer-beneficiaries for their own economic ventures.

JOSE PANGANIBAN AGROFORESTRY PROJECT

I THE PROCESS

The Participatory Rapid Rural Appraisal was conducted jointly by the BURDFI staff and the JPAP farmer participants through an assembly attended by 24 farmers on August 29, 1991. Of those who attended the assembly, 50 percent were farmer leaders and the rest were members of the 11 farmer associations which comprise the whole project area. They were divided into six groups of 4 each. The PRRA guide points were translated into Filipino from English and were used as working documents by the workshop groups.

II RESULTS

A. Inputs

1. The Project Site

Issues	Action Taken
a. The farmers were not receptive to the objectives of JPAP. They feared the project might claim the harvests out of seedlings given to them. Due to past experiences with other projects, they were no longer receptive. This was in 1985.	Constant visit with the farmers were done by the staff. The staff worked with the farmers in the farm. The Project Manager explained the true intention of the project.
b. The technology of SALT was suited to the area. It is labor intensive. Some farmers adopted the technology but failed to maintain the SALT farm.	The project introduced multiple cropping technology. It distributed seedlings like citrus, coffee, cacao, black pepper and other fruit bearing trees.
c. Other sites failed to participate well because they lacked responsible team leaders and group leaders.	Meetings were conducted. The team leader and irresponsible group leaders were replaced by the members.
d. Security of tenure to communal forest occupants.	Not yet resolved.

2. The Project Staff

Agroforestry project staff must be:

a) Efficient
b) Patient
c) Committed
d) With at least 2 years experience in working with the farmers
e) Responsible
f) Can be trusted upon
g) Possess higher educational attainment
h) Equipped with technical know-how
i) Reliable
j) Hardworking

Agroforestry staff may be evaluated through:

a) Screening

- Chairman of existing organizations must be included in the screening committee

- Credentials must be presented to the screening committee

- Certification of good moral character must be issued by respected member of the community where he/she was originally assigned

b) Interview to be conducted by BURDFI staff along with farmer-leaders

c) Actual test to be conducted at the project site

The project may need the following personnel:

Project Manager	-	1
Training Coordinator	-	1
Community Organizer	-	1
Crops & Livestock Spl	-	1
Farmer-Extensionist	-	11
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The project needs one farmer-extensionist per site to effectively carry out the activities of the project and to further mobilize project operation in each site.

The agroforestry staff must have an expertise working in the uplands and remote barangays. He must be willing to reside at the project site to be more effective. He must possess the technical know-how on different activities being implemented by the project.

3. The Project Funding

Issue

a) Delayed releases of funds

Action Taken

- Up to date submission of billings and reports
- Explained this issue to the farmers since this affects much on payments for "pacquiao" labor contracts and community works

4. Farm Participation

The five (5) most important strategies which promoted farmer participation in the project were as follows:

a) The staff showed their deepest commitment in serving the farmers by residing in the area, working with the farmers and constant monitoring on existing plantations.

b) Constant meetings were conducted. Farmers meeting was held once a month at their respective site, farmer-leaders attended the joint staff and farmers meeting and organizational strengthening meetings held once a month to plan project activities and strengthen farmer-organization.

c) The project provided farm inputs needed by the farmers such as citrus, black pepper, coffee, fertilizers, and others in exchange for labor rendered to project.

d) The project provided trainings and seminars on suitable upland technologies and conducted cross farm visits for the staff and farmers.

e) With the formation of a farmer-trainors group and hiring of farmer-extensionist, these contributed to the participation of more farmers to the project.

5. Phases of the Project Cycle Where Farmer Participation is Important

a) Farmers participates on planning activities. During the planning, they laid down their needs in relation to individual farm plan development. During the project implementation, they planned their monthly activities and hit their targets. These activities were reported by farmer-leaders during the joint staff and farmers

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meeting. When the project expands in 1990-1991, respective officers of existing organization participated in the planning activities conducted during the planning workshop and strengthening meetings.

b) Farmers participated in the project as an individual. Later they formed small groups. From these small groups, a team leader was elected. The group leaders and the team leaders attended monthly meetings facilitated by the staff. The leaders were responsible for information dissemination and distribution of farm inputs. Their accomplishments were reported during the joint staff and farmers meeting. Later they formed an organization. These organizations became responsible for the distribution of farm inputs, tools and livestock dispersal.

c) Farmers participation is important in all phases of the project cycle.

Effective means of farmer participation are:

a) Technology adoption
b) Attendance to meetings and trainings conducted
c) Formation of an organization, cooperative or association

Five (5) strategies of Promoting Community Participation

a) Holding of meeting with the barangay council regarding project implementation.

b) Implemented community projects like spring box, graded trail and day-care center which benefited the whole community.

c) Provided trainings which involved members of the community like health and sanitation, backyard gardening, etc.

d) Conducted survey, issued CSC and resolved boundary conflicts.

e) Introduced livelihood projects to existing farmer-organizations and provided them with reading materials.

Forms of Community Participation

a) Bayanihan
b) Tornohan
c) Pacquiao Labor
d) Cooperative/Association Formation
e) Meetings/Assemblage

Five (5) Upland Technology Adopted

a) Nursery Establishment and Management
b) Tilapia Production
c) Asexual Plant Propagation
d) Multiple Cropping
e) Livestock Integration

These technologies were adopted because of the following reasons:

a) These provided additional income for the farmers
b) The said technologies were suited to the area
c) These will serve as the main tool in uplifting their socio-economic status

These technologies were extended to the farmers through:

a) Conduct of trainings and seminars
b) Extension works conducted by the technical staff and farmer-extensionists
c) Farmer meetings

Impact of these technologies:

a) Maximization of land use
b) The farmers have acquired enthusiasm in farming
c) Positive attitude was developed concerning livelihood
d) Increased income
e) Increased technical know-how
f) The farmers tend to accept farming innovations from the project
g) They learned the process of experimentation
h) More farms were developed through these technologies
i) Before the project, the farmers were engaged in monocropping. When the agroforestry project was implemented, they adopted intercropping, multi-storey cropping and other which contributed to higher income and stable living.

Percentage of increase in income

Since the different crops planted were not yet producing, percentage of increased income could not be calculated. But with livestock dispersal, successful recipients have increase in income to as much as 80 percent, while on tilapia production, farmers earned from selling tilapia fingerlings and the harvests were consumed by the family. Those farmers who raised seedlings at the nursery also received some incentives from the project.

Institutional Linkages

The project established linkages with the followin institutions:

a) Department of Agriculture
b) Department of Trade and Industry
c) Land Bank of the Philippines
d) Institute of Plant Breeding
e) SA-AMIN SA JOSE PANGANIBAN
f) Department of Agrarian Reform
g) Department of Health
h) Department of Environment and Natural Resources
i) Cooperative Development Authority
j) Department of Local Government
k) Regional Advance Communications Office
l) Phil. Council for Agricultural Research Development
m) CSSAC

Linkages were established because of the following:

a) As resource speakers for social development trainings and technical trainings being tapped by the project
b) Conduct of research, farm trials and farmer-based experimentation
c) Cooperative Formation
d) Distribution of reading materials

These resulted to better coordination between NGO and government agencies with technical support to the clienteles. Other agencies rendered help to farmers by providing loans, farming innovations, etc.

Other Institutional Linkages Need to be Formed

a) The project must link with the different funding institutions like JICA, CIDA, and other foreign agencies which could help the farmers organizations start worthwhile projects.

b) Farmer-organizations must apply accreditation to different agencies to avail financial and technical support relevant to their existence.

c) Further, the project must link with the DOST, TLRC, and other technically capable institutions to help the farmer organizations acquire necessary know-how on livelihood projects.

Tenure

The most effective tenurial arrangement developed in the project site was the issuance of CSC to farmers in 1985. Re-survey and mediation of boundary conflicts were also done by the project.

Policies stated on the CSC must be stated in Tagalog. Provisions on the CSC must be revised. Effective implementation of the CLT must be done by the DAR.

B. Outputs

1. Farm Development

Farm development were enhanced by:

a) enthusiastic attitude of the farmers
b) increased income derived from developing the farm
c) farmers who worked hard accompanied with great patience and technical know-how

Effective Indicators of Farm Development

a) Establishment of different plantations (coffee, citrus, cacao, black pepper, etc.).
b) Adoption of upland technologies suited in the area.
c) Farmer-based research
d) Participation in farmer-organizations

2. Participation of Farmers

Good indicators of farmer participation are:

a) Attendance to farmers meetings, trainings and workshop
b) Working with the group in constructing spring box, graded trail, footbridges and communal nursery
c) Extending the technologies to other farmers through level II trainings facilitated by the farmer-trainors and group leaders
d) Adoption of upland technologies
e) Formation of cooperative and association
f) Production of seedlings in the communal nursery

Farmers participated in JPAP because they benefited much from this project concerning technical know-how, farm inputs, and additional income.

3. Household Income

No production yet on plantation crops, but with livestock, the farmers obtained 80% increased income plus 10% from pacquiao labor and 5% increased income from other crops.

Reference period: 1989-1990

For the palay production, it is reported that the farmers experienced increased yield from 1989 to date. This is attributed to the fact that the farmers have known different practices like proper fertilization, use of compost, pest control, etc.

4. Environmental Protection

a) The agroforestry project effectively decreased destructive activities such as illegal logging, burning, etc. since the farmers are occupied participating in the project. On the farm, the farmers adopted multiple cropping technology that prohibit them from using the usual "kaingin" method.

b) There were changes in land use in the area. From monocropping, they shifted to multiple cropping for farm diversification. They planted permanent crops and place intercrops under major crops. Other farmers adopted the multi-storey cropping. Lands previously idle were utilized by the farmers now.

5. Other Outputs

a) Livestock Dispersal

At present, there are 8 second recipients and 11 third recipients of swine throughout the project. While there is one second recipient of cow in San Pedro and 2 second recipients of carabao in Alawihiw. Thirty-seven (37) farmers benefited from swine dispersal since 1988. Likewise, twelve (12) farmers are recipients of carabao and three (3) farmers for cow benefited from livestock dispersal since its implementation.

Stricter implementation of this program must be imposed by farmer-cooperatives. Its scheme must be revised to improve its implementation.

b) Cross Farm Visit

The different farmer-organization must conduct visit on successful cooperatives and livelihood projects like dehydration plants, food processing, etc.

Farmers must visit successful farms where different upland technologies were adopted.

III FOLLOW-ON

A. Present Status of the Project

The Jose Panganiban Agroforestry Project now on its extension period (1990-1991) is being implemented by the Bicol Upland Resources Development Foundation, Inc. (BURDFI). BURDFI being community-based is composed of young professionals and small farmers where four members of its BOT are farmer-cooperators of JPAP. Below are the tangible accomplishments of the project:

1. A training center was constructed as venues for trainings, meetings and workshop not only for JPAP farmers but on a national level. The project has formed a Farmer Trainors Group which facilitate trainings for farmers of different upland projects (ISF, UNDP-ISF, DA, etc.). The farmer trainors serve as speakers, facilitators and caterers.

2. Formation of 11 cooperatives/association - JPAP which covers 11 barangays from the original three barangays on its extension period have organized the farmers into cooperatives/association. The different cooperatives have sought legal personality by registering with the CDA. This is in line with the program of strengthening linkages with other government agencies. The Sta. Cruz Multipurpose Cooperative, Inc. have availed Production Loan from Land Bank of the Philippines; the United Farmers Multipurpose Cooperative, Inc. at San Pedro have been qualified to operate Bigasang Bayan by NFA; and the Alawihiw Multipurpose Cooperative, Inc. the Cruz-Nayon Tugason Multipurpose Cooperative, Inc. and the Bagong Silang II Multipurpose Cooperative, Inc. are beneficiaries to the TST-SELA Program of the Department of Trade and Industry.

3. Establishment of agroforestry farms - about 350 hectares were planted with citrus, coffee, blackpepper, other fruit trees, palay and vegetables. Twenty farmers with a total area of 11 hectares have constructed aquaponds.

4. Citrus plantations established in 1987 started bearing this year.

5. Have established linkage with IPB on some field experiments.

Needs to be Done after RRDP

1. Strengthening of farmer organizations
2. Livelihood projects for cooperatives
3. Management trainings for existing organizations
4. Fruit processing projects and facilities
5. Marketing for farm products
6. Maintenance of existing plantations
7. Training facilities

The different farmer organizations as well as the BURDFI has no financial capability yet to put up or provide the priority needs of the farmers with regards to Post Harvest needs, i.e. coconut expeller. However, strengthening of the cooperatives until they become capable of managing and operating their businesses may be taken care of the BURDFI by fielding in technical staff, continued linkages with other agencies and keeping committed with what have been started towards sustainability of the community.

B. Expansion of the Project

The project site is adjacent to several barangays of the same bio-physical and socio-economic condition/ problems. Some have already approached BURDFI and others from the neighboring farmers who share their knowledge with regards to agroforestry. However, because of the depressed condition of the farmers, they cannot improve their farms.

An expansion program/extension period may be implemented which will cover more barangays and participants of various levels of development, the former cooperators shall be maintained and their organizations strengthened while the new cooperators will be more on farm development. This period may be through DENR-BURDFI or FUNDING AGENCY-BURDFI-FARMER ORGANIZATION.

C. Lessons Generated from the Implementation of JPAP Relevant to National Projects like CFP, ISF, etc.

1. The project must be designed based on the needs of the community in relation to the bio-physical and socio-economic condition of the area.

2. Farmers should be involved from planning to project implementation. Farmers may have relevant ideas to share and this encourages farmer cooperation through joint project implementation. The services provided by the project will likewise tune in to the needs of the community.

3. Conduct of cross-visits, educational tours, establishment of demonstration farms and experimental farms on the farmers lot stimulate their interest.

4. Farmers themselves developed as trainors and extensionists expedite technology transfer. This also promote loyalty and commitment to the project.

5. Sincerity of staff and other persons behind project implementation gain trust of the beneficiaries.

6. Formation of workgroups, association/foundation enhance farmer participation and hasten accomplishment of targeted activities. This also develop their potential as prime policy maker, planner and implementor of projects for their association/community.

IV STRENGTHS THAT CAN BE SHARED

A. Staff

1. CO - all staff serve as community organizer. However, one staff is identified to look into the needs of the members/organization who consolidate all needs; discuss them with the management; from there, actions are identified.

2. Technical - all field staff have technical capability (agroforestry, research, reforestation, etc.) but one staff acted as specialist that any handicap was acted/solved by him either through information drive or conduct of research to acquire knowledge/top resource persons.

3. Organizational - from workshops they have joined together into an organization such as cooperative or association (per barangay) affiliated to BURDFI. Members/officers have attended trainings such as value formation, business management, post-harvest, diversified farming technology and marketing. Some organizations have operated business like sari-sari store, "bigasang-bayan" and agri-supply.

4. Extension - Farmer extensionists conducted meetings with the farmers per site. They are responsible for information dissemination and monitoring of existing plantations. Farmers as extensionists accelerated the delivery of services and technology transfer. It also strengthened the managerial capabilities and developed dedication among the farmers who in the future will sustain the project.

5. Organizational - Nine (9) farmer-organizations affiliated with the BURDFI. These organizations will become direct beneficiaries of the Foundation, in case of re-lending activities in which project funds will be sourced out from funding institutions. Three (3) farmer-cooperatives will avail loan from BURDFI through

DTI-TST-SELA for livelihood projects like handicraft, copra processing and copra trading. Farmer-organizations planned to implement a common project - the extraction of oil from copra. They need an expeller for this project. Crude oil will be sold to Lucena Oil in Jose Panganiban while the waste products shall be processed as feeds for livestock. They have plans to tap resource speaker from DOST to demonstrate technologies on soap-making and making paper from "dayami". They are going to shoulder the food; likewise, they are requesting the BURDFI to coordinate with the agencies like DTI and DOST.

6. Training - Trainings were conducted as programmed. However, some trainings were requested by farmer-organizations. These were conducted through linkages and counterparting of cost between farmers organization and BURDFI.

B. Types of Training

1. TECHNICAL TRAINING on farm development (agro-technologies) were conducted. The farmer-trainors group served as speaker and caterer.

2. SOCIAL DEVELOPMENT TRAININGS - the farmer-trainors facilitate the training. Speakers were tapped such as personnel from DA, BURDFI, LGU (Municipal Secretary/Auditor) Landbank DTI, Department of Health.

C. Facilities

JPAP established a 170 sq. m. training center which serve as venue for workshop trainings and farmer-organizational meeting. The training center has workshop tables and benches, whiteboard and blackboards. It has 2-room sleeping quarters and 2 shade houses for workshops. Around the training center is one hectare technical farm consisted of coffee farm, citrus farm, blackpepper and cacao farm, an aquapond and nursery shed. A seed orchard was established and planted with assorted species of guapple, guyabano, rambutan, star apple, citrus, lanzones, guava java, guyabano, chico, tiesa, indian mango and others. The said farms will serve as practicum site for trainings and show case.

The staff have prepared a training manual on a compilation of hand-outs for upland technologies implemented by the project. The said manual was distributed to farmer-cooperatives. The farmer-trainors group were provided with leaflets and brochures on different technologies which came from RACO, PCARRD, DA and BICARRD. Farmer-trainors attended classes every Friday at the Training Center to review upland technologies and to study some innovations facilitated by the staff and invited speakers.

D. Proven Strategies

1. Introduced labor-intensive activities such as construction of graded trails, footbridges, and other infrastructures. The project utilized farmer-cooperators or farmer-organization and developed a design so that part of the cost will be saved and used as seed money to procure tools and other farm implements.

2. Right from the start, the participants were made to understand that the project is not a "dole-out". A counterparting scheme either in a form of labor or materials was developed.

3. Sincerity and commitment of the implementors is the most important factor in the success of the project. The values and attitudes of personnel to be hired should be considered as a crucial issue. Value transformation and capability building must be done before the start of project to enable the staff to function effectively and efficiently in the field. Role as the staff and farmers must be clearly defined and executed to avoid misconception. Staging in the area and working side-by-side with the farmers are the best way to gain credibility and maintain working relationship.

4. Constructed communal or group nurseries that proved to be effective in acquiring skills in plant propagation and seedling production. It also served as a venue for conducting meetings, workshops, on-the-job trainings, and planning sessions of each group. Seedlings produced by the groups were given incentive by the project at ₱1.50/seedling. Incentives go as shares for capital build-up of their comparative.

5. Organized farmers into work group or "tornohan" to accelerate farm development and generate unity among the members of the community. From the groups, potential farmer-leaders were identified and developed. From these work groups, farmer-organization was formed.

E. Manuals/References Used on Trainings

1. Agroforestry manuals - RRDP
2. Nursery Establishment and Management - by DAI
3. Brochures/leaflets/handouts - from RACO
4. IIRR handouts
5. Environmental and Adaptation of Crops - PCARRD
6. Technology Guide for Vegetables - IPB
7. Handouts - CESAC
8. Information/Data Gathered from IRRI
9. Manuals from TLRC - (Production guide)
10. Handouts/Manuals from MBLRC
11. Handouts - DA
12. Handouts/information - DTI
13. Compilation from BICARRD
14. Textbooks with staff used in college

MAGDUNGAO AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted the whole day of September 7, 1991. It was in the form of a group workshop attended by 9 members of the Board of Trustees of the Magdungao Agroforestry Farmers Association, Inc. (MAFAI). The guide questions of the PRRA was translated into the local dialect. During the regional consultation meeting and workshop, the Vice President of MAFAI was also present.

II RESULTS

A. Inputs

1. The Project Site

Unresolved Problems

- Absentee claimant
- Issuance of CSCs to release portion of the project which are claimed as A and D
- Project is surrounded by large haciendas making expansion of coverage difficult

2. The Project Staff

- Staff must have a rural/upland background
- Dedicated to his work
- With good health
- Know how to speak local dialect
- Survival instinct
- Patient
- Agriculture or Forestry graduate

Evaluation

- Through actual performance evaluation validated with the community or participants

Staff Needed

- Five (5) staff
  - One Project Manager
  - One Clerk
  - Three (3) Extension workers (Agriculturist or Forester)

3. Project Funding

Issues and Problems
- Delayed releases of funds
- Extra/additional requirement during processing of working papers
- COA regulation that is not applicable to project level

Not yet solved due to no attention given by policy makers

4. Farm Participation

- Information dissemination on the overall objectives and benefits can be derived from the project.
- Issuance of Security of Land Tenure
- Staff should work with the farmer
- Rapport building

Participation is important in all phases of the project, especiallu during the implementation and decision making

5. Community Participation

- Workgroup/organization creation
- Participation in decision making
- Dagyaw/hil-o hil-o revival
- With proper coordination with the local leaders
- Creating activities which is suitable to the community
- Problem solving
- Decision making or policy for the community
- Program implementation

6. Upland Technology

- Soil and water conservation structure
- Multi-storey cropping system
- Farm forest
- Relay cropping
- Inter-cropping

How were these technologies extended
- Trainings
- Modeling
- Establishing on-farm trials/demo

7. Institutional Linkages

- o DOH
- o Through coordination with the involved agency
- o Balance diet has been attained by the community and also sanitation has been practiced
- o DTI, DPWH, NAPOCOR, NFA, CDA

8. Tenure

- o CSC
- o Land Titling

B. Outputs

1. Farm Development

- o Security of land tenure, capital, labor force of the family, farm work animals and workgroups
- o Many trees has been planted, SWC has been constructed, fertility of soil increased
- o Production increased
- o Planted and cultivated lots

Impacts of technology

- o Income - Increased
- o Environment
  - Climatic change (the areas become cool)
  - Wildlife started to return in the area
  - Springs water yield increased to 30%
  - Cogonal lots become productive
  - Water in the river/creek becomes clear
- o Agroforestry - 75%

2. Participation of Farmers

- o Adoption of introduced technology
- o Attendance/presence during the conduct of meetings
- o Active participation in project activities (from the start of the project to date)
- o They understand the objectives of the project

3. Household Income

- o Agroforestry - 1989-1990, 40% to 100%
- o Other Sources - 1990-1991, 25%
- o Crop production
- o Production increased since they planted variable vegetables and the soil become fertile

4. Environment Protection

- o Decreased destructive activities because they

understood that there is bad effect
- o Changes in Land Area
  - From Cash crops to perennial crops
  - Agricultural crops to forest crops

5. Other Outputs

- o Livestock dispesal - increased in number
- o Proper implementation of what is written/stated in the contract
- o Revolving funds - Not successful because other where not able to pay. So that it will be successful there should be a contract and with guarantee.
- o Cross Farm Visit - It helps a lot especially in farming/livelihood of the participants.

III FOLLOW-ON

1. Status of the Project

	Major Goal 1991	Attained	Unattained
1.	Farmers Training Center for R-6	x	
2.	Access Road (3 km)	x (90%)	
3.	Multi-purpose cooperative formation*		x
4.	Additional Livelihood Activities		
	a) Cottage Industry*		x
	b) Guano/Organic Fertilizer Processing*		x
	c) Charcoal Production (kiln)		x
5.	Marketing System		x
6.	Credit Services	x	
7.	Land Titling*		x
8.	Organization Strengthening	x	

* Can be attained within 1991

What else needs to be done

1. Training Operation - Continuation/follow-up to second level of farmers training started by FAO-TSARRD
2. Barangay Park Development - Planting of indigenous tree species that can be found at the area
3. Additional livelihood models/trials
   - a) Sericulture - silk
   - b) Apiculture - honey
   - c) Cut-flowers
   - d) Cattle fattening
   - e) Feed processing
   - f) Passion fruit production
   - g) Guyabano production

2. Can expand the present project but the area is situated and surrounded with large hacienda and the farmers were only lessees and/or tenants.

IV. LESSONS FOR ISFP, ETC.

- Site selection
- See to it that claimant actually living inside the lot before issuance of CSC
- Organize cooperative
- Release mobilization fund for activities contracted by farmers
- Using farmer trainor in training other farmers

Prepared by:

- MAFAI Board of Trustees

1.	Belarmino Pagurayan	-	President
2.	Elmar Palma	-	Vice President
3.	Ricky Patino	-	Treasurer
4.	Ruel Aquilario	-	Auditor
5.	Hernane Patino	-	Member
6.	Leodolfo Pirote	-	Member
7.	Rodolfo Panigua	-	Member
8.	Rogerico palam	-	Member
9.	Edgardo Firma	-	Member

- Project Staff

1.	Ysmael P. Palada	-	Project Manager
2.	Vilma M. Calunsod	-	Proj Eval Officer II
3.	Cecile Sabido	-	Proj Eval Officer I

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MAGDUNGAO AGROFORESTRY FARMER'S ASSOCIATION, INC.
Magdungao, Passi, Iloilo

PROFILE

SEC Registration	-	April 26, 1988
Registration No.	-	1000073
No. of Registered Members	-	96
Active Members	-	55
Kabilugaqan nga Pundo/Propidad	-	₱276,066.55
No. of Farmer's Trainors	-	11

Activities:

1. Contracted training and catering services to other ISF farmers in R6 sponsored by FAO (12 batches).
2. Contracted catering services for PDAP training in 1989
3. Contracted catering services for DENR ISF R6 new employees
4. Contracted training for farmers training of MAP farmers
5. Facilitated loan application to members from LBP
6. Contracted 30 ha communal reforestation
7. Monitored/supervised and provided labor for the construction of 2.8 ha road
8. Contracted construction of facilities of training center and the project
9. Contracted with UPLB-IESAM for the publication of Farmers Training Manual
10. Dispersed 8 swine to active members
11. He constructed own facilities for training center
12. Contracted technical assistance for farmer training with "SAVE THE CHILDREN"
13. Involved in MOnitoring of results for farmers training with TCARRD
14. Lead in organization of PANAY Upland Farmers Federation
15. Had published the Manual on Agroforestry Practices for farmers
16. Hosted 1991 summer practicum of agroforestry major students of Negros Occidental Agricultural College

MAGDUNGAO AGROFORESTRY PROJECT
Magdungao, Passi, Iloilo

PROJECT PROFILE, 1991

Total Area Covered	-	232 ha
Closed Forest	-	140 ha
Open Areas	-	92
No. of Beneficiaries	-	121
With CSC	-	101
No. of Household	-	75
No. of Families	-	96
Communal Reforestation	-	30 ha
Seedlings Produced	-	200,388 pcs
Seedlings Dispersal	-	185,000 pcs
Agroforestation	-	202 ha
Project Area Development		
a. Land Stabilization	-	895 ha
b. Multiple Cropping with SWC	-	565 ha
c. Multi-layered AF	-	48 ha
d. Model Farms/Demo Farms/ Experimental Lots	-	12 no
Land Tenure		
a. CSC	-	101
b. GSS (for titling) A&D	-	64
Community Works		
a. Trainings/Seminars/Workshop Cross-visits	-	15,543 mandays
b. Association	-	2
c. Workgroups	-	16
d. Cluster	-	6

Facilities/Infrastructure/Tools/Equipment

a. Graded trail	-	7.475 km
b. Trail Maintenance	-	3 km
c. Access Road	-	3 km
d. Multipurpose Pavement	-	495 m^2
e. Buildings/Structures/ Equipment		
- Staffhouse/Office	-	120 m^2
- Training Hall	-	100 m^2
- Dormitory	-	66 m^2
- Mess Hall & Kitchen	-	35 m^2
- Mill House	-	30 m^2
- Nursery Buildings	-	7 units
- Water Supply System	-	12 units
- Rice Mill	-	1 unit
- Wind Powered Generator	-	1 unit
- Work Animals	-	6 heads
- Piglets	-	13 heads

Other Support

a. Botica sa Barangay	-	5 clusters/no.
b. Child Immunization Program	-	348 no.
c. Pregnant Mother Immunization Program	-	55 mos

VISARES AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted during the monthly meeting of the Farmer Association attended by 20 members. It consist of farmer leaders, farmer trainors and members of the association.

II RESULTS

A. Input

1. Project Site

2. Project staff

Qualifications
- o With enthusiast
- o Educationally capable and experienced
- o With understanding on rural life
- o With patience
- o Honest, committed to work, live on site

evaluation
- o Screening and identification of concise criteria; output oriented

Staff Needed
- o One Forester
- o One Agriculturist major in crop production
- o One Agriculturist major in agribusiness

3. Project Funding

- o Untimely or delayed release of funds

How was this resolved?

- o putting up of revolving fund
- o programming of procurement should be earlier as it is actually needed
- o personal money

4. Farmer Participation

What promoted farmer participation?
- o Training
- o Dispersal
- o Planting materials and other farm inputs
- o Membership of the farmer's association

Means of participation

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- In planning, implementation and evaluation
- Attendance and participation in meetings
- Rendering of voluntary works

5. Community Participation

- Participation of project staff in community activities/ affairs
- IGP introduction
- Involvement of the community in planning and implementation
- Formation of workgroups and facilitating its activities

Forms
- Voluntary works (pintakasi)
- Protection of communal refo

6. Upland Technology

Technology well adopted
- Multi-cropping system
- Comm. reforestation
- SWC
- Livestock integration
- Upland aquaponds

Why
- protective
- productive
- promote soil, water and nutrient conservation and enrichment

How were these extended?
- Trainings, OJT
- Cross-farm visits
- On-farm trials and demonstration

Impact of technology
- 45% increase in value of assets (1985-1991)
- 25% increase in farm income
- Soil thickness improved
- Cogonal vegetative cover was replaced with forest trees and ipil-ipil
- Drying up of water in creeks and well are now minimized

7. Institutional Linkages

- DTI - Livelihood related trainings
- DA - resource speakers, vaccination of working animals, and technical assistance
- PCA - provision of farm inputs for small coconut farmers and users
- DOH - regular check-up and vaccination of women participants and their children

8. Tenure - CSC (agreement for livestock)

B. Outputs

1. Farm Development

- o Benefits - increase income, environmental protection
- o Poverty
- o Support from the project

Indicators
- o Increase yield
- o More planting of permanent crops

2. Farmer Participation

Indicators
- o Increase/regular attendance in meetings
- o Participation in development works
- o Increase membership of farmer's organization
- o Participation in planning and implementation

3. Household Income

- o Average increase of 25% of farm income (1989-1991)
- o Increase total asset value is 45% (average)

Component
- o Multi-cropping
- o Planting of permanent crops
- o Livestock integration

4. Environmental protection

- o Several persons involved in illegal logging were turned farmers, changes in land use
- o Cogonal area planted with trees and some were cultivated
- o Coconut areas now mix with agricrops and forest trees

5. Other Outputs

- o Funds - used to capital farmers IGP
- o Livestock dispersal - with written agreement

III FOLLOW ON

Memorandum of Agreement between DENR, EVRDF and Farmers Foundation

EVRDF - Management assistance
Business ventures
Livestock dispersal
Rattan concession

SAN MIGUEL AGROFORESTRY PROJECT

I PROCESS

Five staff members conducted the PRRA with five key farmer leaders in a workshop type of session.

II RESULTS

A. Inputs

1. The Project Site

Issues

- Strong opposition of the BUFA (Ranch Petitioners) loaders against the project due to traumatic experience of the community from previous BFD implemented project.
- Presence of absentee claimant mostly members of BUFA and military personnel.
- Hesitant to plant forest trees due to misinformation done by the BUFA leaders that their land will be taken by BFD for reforestation.
- Presence of landlord-tenant relationship.

2. Project Staff

- Preferably college graduates with technical qualifications in Agriculture, Forestry and Engineering
- With expertise, actual experience/exposure on Agronomy, Animal Science, Nursery and Plantation Management, Civil works, with writing skills (as a team).
- Must have actual experience/exposure in rural communities preferably from farmer parents.
- Minimum of four to five staff (4 to 5) staff

Evaluation

Pre-application-briefing - written exam and interview - OJT thru 3 months probationary status

Based on performance: ability to motivate farmers, decision making and proposal preparation; innovativeness

3. Project Funding

- Untimely releases of funds - delayed implementation

particularly on farm development which is mostly dependent on climate and cropping season.

- Eleventh hour obligation during year end.

4. Farm Participation Strategies

- Small group consultation/farm planning
- Constant farm monitoring/home visit
- Immediate response to farmers needs, planting materials including family problems
- On-farm trials/cross visit
- Be familiar with farmers activity (farm); listen/ solicit farmers' feedback, share opinions instead of promises

Phases/cycle

- Info drive/group consultation
- Planning stage (participatory)
- On-farm trials/implementation
- Technology evaluation/assessment

Effective Means

- Farmers involvement

5. Community Participation Strategies

- Social investigation - cultural pattern, tribal grouping, clan
- Proper identification of community leaders to facilitate community works/activities
- Involvement and support to community activities (fiesta)
- Participatory planning - clear objectives/benefits
- Organized and well coordinated implementation of activity
- Cross visit

Forms of Participation

- Participatory planning
- Bayanihan
- Cooperative Management
- Technology Innovation

6. Upland Technology Most Adopted

- SWC
- Fruit Orchard
- Individual farmer tree plantation
- Goat raising (crop-livestock integration)
- Multiple cropping

Extended to project participants thru trainings, meetings, on farm trials and results.

Impacts

- SWC - erosion control, support to livestock component as fodder and attract the eyes of visitors.
- Fruit orchard contributes farm cultivation expansion from idle land; at present serves as asset that adds value of land from ₱1,000/ha to ₱25,000/ha.
- Same as orchard - long term investment - tree plantation

- Livestock (goat raising) - upgrading of native goats in the community, support maintenance of native goats in the community, support of hedgerows and home gardening-production coming.

- Multiple cropping - buffer to fluctuating price of corn

Household Income

- Socio-eco to be conducted yet
- Visible source of income increase - graded trails, seedling production, and reforestation.

7. Linkages

- Linkages with research institution like IRRI, RIARS of DA and DTI for crop production and cottage industry.
- Academe like CMU for technical support particularly on trainings.
- Linkages to be formed will be for marketing assistance from NFA, other established cooperatives and traders.

8. Tenure

- CSC for individual farms
- FMLA for communal reforestations

Indicators of Farm Development

- Additional cultivation/expansion
- Adoption of multiple cropping
- Planting of permanent crops
- Stabilized sloping farm with SWC

Indicators of Farmers Participation

- Active participation in planning and implementation share observations.
- Involvement in information dissemination
- Technology innovation

Environmental Protection

- o Minimize burning in relation to protection of the plantations supported with barangay ordinance.
- o Land use were charged from cogonal to cultivated, tree planting and from mono cropping to multiple cropping.

Other Outputs

- o Livestock component is for expansion it must be integrated with crop/farm development activities.

Revolving Funds

- o The revolving funds only supports refo maintenance enterprise still on preparatory stage.

Cross Farm Visit

- o Sites for visitation should be more or less similar with the project in terms of climatic condition, etc.
- o Farmer participants are those that have shown interest and with initial implementation/development in his farm.

III FOLLOW-ON

Immediate

- o Marketing in linkages/assistance
- o Cottage industry/livelihood trainings
- o Strengthening of organization to handle economic enterprises
- o Issuance of CSC

Medium Term

- o Expansion of crop - livestock integration
- o Crop - post harvest facilities
- o Livestock - from goat raising to cattle fattening
- o Continuous support to nursery operations/seedling dispersal for tree plantations and fruit orchard
- o Support to ISF thru training package for technicians and farmers utilizing modules generated from project implementation.

KIBLAWAN AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted by five (5) staff members using a set of guide questions. It involved 50 farmer leaders and members of the farmer organization. Interviews were conducted after farmers return from work in the afternoon.

II RESULTS

A. Inputs

1. The Project Site

Issues

- o The project is bait; the government will eventually get the lands they till
- o Left leaning project (communal refo - workgroup)
- o Just like any other projects (ningas-cogon)
- o No time for workgroup activities
- o Contour hedgerows will reduce farmer's area to be placed with cash crops.
- o Absentee farmer-claimants; farmer claims lands large enough for them to handle.

The first four issues are resolved thru informal and formal dissemination of project objectives - trainings, cross-visits, meeting/consultations, farm demonstration, barangay assemblies.

The issues on absentee-claimants and unmanaged timberlands remained unresolved since the start of the project.

2. The Project Staff

a) Qualifications

- o Leadership ability; ability to convince/deal with farmers
- o Committed, hardworking, patient, industrious, trustworthy
- o Willing to reside in the project site; willing to work with farmers in the field
- o Preferably Agriculture/Forestry graduate with experience in a agroforestry work
- o Female, no vices

b) Expertise as farm technology, agroforestry, dealing with farmers

c) No. of staff - two (2) staff in every barangay for

close supervision

3. Project Funding

a) Delayed releases of funds, credibility and morale of staff

b) Staff borrowed from friends/dealer, for farm inputs; at any rate, no issues had resolved.

4. Farm Participation

a) Strategies that promoted farmer participation

- o Conduct seminars
- o On-farm activities
- o Transfer of technology through actual practice
- o Tour cross visit
- o Meeting
- o House to house visit
- o Set example
- o Share to them their benefits in the project

b) Phases of project cycle where farmer participation was important

- o Farmers participation was so important during the planning stand of course more so in the implementation

c) Effective means of farmer participation

- o Off-farm activities
- o Frequent visit and encouragement of the farmer
- o Farmers meeting
- o Film showing
- o Various contest
- o Good Leadership
- o Alayon to their individual farm

5. Community Participation

a) Strategies of promoting community participation

- o General assembly
- o House to house campaign
- o Identify respected community leaders who can assist in community organizing
- o Demo farm
- o Seminars/trainings/cross-visits
- o Participation to community activities
- o Introduce a project that is needed by the community to solve their main problem
- o Being true to promises

b) Forms of community participation

- Attendance to project activities such as alayon in on-farm activities, assembly meetings, etc.

- Demo farms
- Barangay assembly
- Conduct trainings and seminars
- Proper information about the project's aims and purposes

6. Upland Technology

a) Adopted upland technology

- Use of organic fertilizer
- Soil and water conservation (SWC)
- Multi-cropping
- Reforestation, nursery establishment
- Aquaculture, livestock production
- Plant propagation

Why were these technology adopted

- Increase in crop production
- prevent soil erosion
- permanent/future investment
- regain soil fertility
- choose good variety of plants/seedlings

b) How were these technology extended to project participants

- Seminars/actual field demonstration
- Actual training by technicians
- Cross visit

c) Impacts

- Income - increased the income of the farmers thereby uplifting their economic condition
- Environment - re-greening the area; prevented soil erosion; prevented/ceased burning method
- Others - established closer relationship between the staff and farmers; farmers were challenged to produce more

d) 10% to 60% increase in production

7. Institutional linkages

a) RRDP KAP-DENR-ISF
NGOs (MBRLC, davao Sugar Central)
GOs, Local Government (DA, NFA, DOH, DOLE)

b) When the need arises, we took the initiative to establish linkage with different concerned institutions

through formal request both personal and written.

c) Results

- o Smooth implementation
- o Construction of a water system
- o Provision of health services
- o Technical Assistance
- o Marketing Assistance

d) Other institutional linkages to be formed

- o DPWH for road maintenance and other infrastructure construction/necessity
- o BANK for financial assistance and depository venue of farmers' cooperative funds.

8. Tenure

a) Acquisition of SWC
b) Thru the assistance of DENR
c) DENR to really implement the provisions in the stewardship agreement.

B. Outputs

1. Farm Development

a) Factors that enhanced farm development

- o Incentives thru disposal of grafted mango, durian, rambutan/forest trees.
- o Increase in production thru farm demonstration trial; soft loans
- o Cross visits
- o Results of SWC per farm observation

b) Indicators of farm development

- o Expanded and maintained SWC's and planting of permanent crops. Increased production thru the use of technology introduced by the project staff.
- o Improved soil fertility of their farm
- o Physically, plants are vigorously growing green.

2. Participation of Farmers

a) Indicators of farmers participation

- o Establishment of SWC in the farm area
- o Farmer to farmer dissemination of knowledge/technology learn from the project
- o Prompt attendance to meetings

- o Enthusiastic attendance to project activities
- o Application of technology to their farms

b) When did it come about?

- o During seminars/trainings/cross-visits since farmers are guided in the project implementation
- o When technicians introduced technology in the field
- o When project was introduced to the place
- o When the technology was proven and tested
- o When they observed that the first group farmer were benefited

3. Household Income

a) 10% to 60% increase in production thereby increasing household income. However, new members have no increase yet because their SWC is still newly developed and the soil is not yet recovered well from denudation, their plants, fruits and forest trees are not yet productive.

b) From 1981 to 1991 communal reforestation is 85 ha which is equal to ₱478,125.00; graded trail is 21 kilometers which is equal to ₱210,000.

c) Corn production with SWC application by lime and organic fertilizer.

4. Environmental Protection

a) Yes, because some of the participants have been illegal loggers and by means of consistent education through a series of seminars they become aware of the destruction they were doing. Some of the cooperators help in information dissemination. Participants are busy in project activities.

b) Motivate the farmer to identify first what crops maybe suitable to his area; identify potential farmers to be sent to cross-visits who are really eligible to grasp proper technology transfer.

5. Other Outputs

a) Livestock dispersal was successful due to the following strategies:

- o Goat - upgraded the local variety; produced 100% Anglo Nubian variety for dispersal
- o Carabao - two of which have already produced offsprings; some are pregnant; others of good breeding

- o Cow - raised for dispersal
- o Horse - raised for dispersal

b) Proper imposition of group agreement; persuade the farmers to purchase their own from share of off-farm activities.

c) In order to ensure rapid dispersal.

d) Revolving Funds

- o Constant education on simple accounting and bookkeeping system.
- o Require the treasurer to submit a monthly financial report of the workgroup
- o Conduct proper auditing of funds by the auditor with the aid of the staff.

III FOLLOW-ON

a) The project has accomplished more than 90% of its total targets

Needs to be done after RRDP

- o Organizational strengthening thru expansion of the project
- o Technical strengthening thru the conduct of trainings (farmer to farmer base extension)
- o Marketing assistance thru strengthening of cooperative and acquisition of post harvest facilities.

b) Can you expand present project to cover a wider area and more participants?

Yes, in order to promote sustainability of the project thru farmer cooperators, KRDFI and follow-up projects.

c) Abandoned areas are planted to trees and SWCs are constructed.

UPI AGROFORESTRY PROJECT

(In Local Dialect)

I PROCESS

Staff conducted a house to house or individual household conduct of the PRRA which was translated into Pilipino.

II RESULTS

A. Inputs

1. Project Site

Ano-ano ang mga issue sa pagimplementa ng proyekto? Paano ito nabigyan ng solusyon? Anu-ano an hindi nabigyan ng solusyon?

Issues:

a) Ang mga farm area na nasasakupan ng proyekto ay babawiin ng gobyerno sa pagdating ng araw na ito ay nadevelop na.

b) Ang pag-organize ng mga communal groups ay sa pamamaraan ng mga komunista at ang mga staff ay mga rebelde dahil dito sila ay hindi nagmumukhang tunay na empleyado ng gobyerno.

k) Ang pag turn-over ng project sa Autonomous Government (ARMM) at kung saan i-turn over ang mga equipment ng project.

Solusyon:

a) Ipinaliwanag ng husto ng mga proyect staff sa meeting na ang lahat ng nadevelop ng mga magsasaka sa kanilang area ay magiging sa kanila na. Ang area na walang development ay maaaring bawiin ng gobyerno.

b) Sa patuloy na pakikisama ng mga staff sa mga farmer sa bandang huli ay nagkaroon din kami ng paniwala na sila ay hindi rebelde kundi mga matulungin at mabait nd empleyado ng gobyerno.

Mga issue na hindi na-resolbar ay ang mga sumusunod:

a) Palaging huli na release ng funding
b) Kung saan i-turn over ang project at anf equipment na kailangang k..langan ng project at ng aming asosasyon.

Ang mga issue na ito ay hindi namin mabigyan ng solusyon dahil sa wala sa level namin ang pagdedesisyon nito.

2. Project Staff

a) Ang mga karapatdapat na katangian ng project staff ay ang mga sumusunod:

Kailangan ang staff ay single, matapang humarap sa problema sa lugar at sa trabaho, walang sakit, masipag, magaling makisama sa mga magsasaka, at kung puwede siya ay dating magsasaka para hindi siya mahirapan sa pagintindi sa aming sitwasyon, kailangan din siyang tumira sa area, kailangang magaling magkumbinsi at magpaunawa sa mga may matitigas na ulo na partisipant at higit sa lahat ay hindi sila nagmukhang manok at kambing. Para malaman kung ang staff ay karapatdapat sa proyekto, kailangan siya ay magkaroon ng accomplishment na naayon sa kanyang plano na itinakda.

b) Ang mga kagalingan ng mga staff na karapatdapat sa proyekto, ay ang mga sumusunod:

- o Magaling mag-organize ng grupo
- o Marunong sa mga teknolohiya sa bundok (tulad ng contouring, reforestation nursery at iba pa)
- o Magaling Magturo sa training
- o Magaling magkumb[illegible] farmer
- o Magaling magsalita sa harapan ng karamihan

Ang tamang-tama na staff para sa project ay sampu (10) para magampanan ang lahat na mga gawain ng proyekto.

3. Project Funding

Ang pinakakilala na issue na nangyayari sa pag-implementa ng proyekto ay an palaging huli na pagdating ng pundo para sa mga nakatakda na mga gawain ng proyekto.

Ang problema na ito ay nabigyan ng solusyon sa pamamagitan ng pag panqutang ng staff, at ng pagkakaroon ng revolving fund sa asosasyon na siyang ginagamit habang wala pa ang release.

Ang issue na hindi pa nabigyan ng solusyon ay ang hindi pa bayad na gawain n proyekto na natupad na.

Ang release ng pundo ay hindi trabaho namin na mga magsasaka.

4. Farm Participation

Sa pagkakaalam po namin, ang estrahiya na nagpapadagdag ng partisipasyon ng mga magsasaka sa proyekto ay ang pagkakaroon ng meeting buwan-buwan sa buong project, na kung saan ay nagkakaroon ng discussion sa pamlakad ng proyekto,

ang pagkakaroon ng pintakasi o bayanihan, ang pagkakaroon ng workgrouping, ang pagkakaroon ng contract sa bawat grupo, ang pagkakaroon ng cross visit, ang pagkakaroon ng training.

Ang partisipasyon sa bawat grupo o organisasyon ay mas epektibo kung ang miyembro ng grupo ay may malapit na farm area (adjacent), kung ang miyembro ng grupo ay may malapit na relasyon.

5. Community Participation

Ang pinakaimportnte na pamamaraan na nagpapadagdag ng partisipasyon sa mga magsasaka sa proyekto ay ang mga pagkakaroon ng cross visit sa iba't ibang agroforestry site na halos nagkakaroon ng pareha na sitwasyon, ang pagkakaroon ng trainings, o workgroup, ang pagkakaroon ng meeting sa workgroup, ang pagkakaroon ng pintakasi o bayanihan at ang pagkakaroon ng asosasyon o workgroup.

6. Upland Technology

Ang mga technolohiya na isinagawa sa RRDP-Upi AFP ay ang mga sumusunod:

a) Soil and water conservation measure tulad ng contouring na may tanim na glamegia madre de cacao, sesbania, and ipil-ipil at iba pa.

b) Soil enrichment technique of organic farming na kung saan ay kinukundisyon ang sloping na lupain

c) Rotation cropping o ang interval sa panahon na nagtanim ng mais at ng tanim na legume

d) Multiple cropping o ang pagtanim ng sarisarisa isang lugar sa magkasabay na panahon

e) Ang paggawa ng compost

f) Ang paggawa ng nursery

g) Livestock management

h) Vegetable gardening

i) Communcal reforestation

o Paano ba itong mga pamamaraan na itinuro o pinarating sa mga magsasaka?

Sa pamamagitan ng kasipagan at paghihirap ng mga staff ng project sa farm to farm o house to house na pagkumbinsi at

sa pagkakaroon ng sumusunod na ito ay nakakarating sa mga mababa na magsasaka tulad namin.

o Ano-ano ang resulta ng teknolohiya sa inyong kinikita sa inyong kapaligiran at iba pa?

Sa loob ng halos tatlong taon na inimplementa ang mga teknolohiya na itinuro sa amin ng mga staff ng RRDP, ay nagkakaroon ng kaunting kaibahan sa aming production, kinikita at kapaligiran sa aming lugar. Ito ay sa pamamagitan ng mga sumusunod:

- Kinikita dati-dati - Malaki ang aming kinikita sa aming lupain sa pamamagitan ng paggamit ng Commercial Fertilizer ngunit malaki din ang aming nagagastos na kung saan ang aming net income ay maliit lang at kung minsan ay lugi pa. Nang gumamit kami ng Organic fertilizer na itnuro sa amin ng RRDP, nagkaroon kami ng hindi masyadong malaking harvest ngunit mas malaki ang aming net income, sa estimate po namin ay nagkaroon ng increase na income sa mga 20% maliban dito ay tumataba pa ang aming lupain na kung saan sabi ng RRDP staff sa bandang huli o sa pagsapit ng limang taon ay puwede na hindi na gumamit ng fertilizer sa aming lupain dahil bumabalik na ang katabaan nito.

  Ang contouring na aming ginawa ay wala pang masyadong epekto kung paano makakaprotekta sa aming lupain upang hindi maanod ang mataba na parti sa pagdating ng ulan. Ang aming reforestation ay wala pa ngayon na masasabi natin na epekto sa kapaligiran dahil sa mababa pa sa ngayon.

o Ilang porsento ang nataas sa inyong kinikita sa inyong hanapbuhay sa inyong natutuhan sa RRDP-Upi Agroforestry Project na teknolohiya o sa mga produkto ninyo sa proyekto?

Ngayon po sa aming estimate nagkaroon kami ng 20% na increase sa aming income sa aming hanapbuhay sa pamamagitan ng aming mga natutuhan at kagad-agad napakinabangan sa proyekto. Noong wala pa ang proyekto sa RRDP ay bumayad kami ng ₱20.00 na pambayad sa bawat sako na aming produkto na mais patungo sa maabot ng sasakyan ngunit bumabayad lamang kami ng ₱2.00 sa bawat isang sako na aming produkto na mais magmula na ipaayos ng RRDP at mapapasokan na ng sasakyan ang aming sira-sirang daan. Maliban sa ganitong paraan nagkaroon po kami ng dryer o pahilaran ng aming produkto at may corn sheller machine pa kami na nakakatulong sa amin nabil namin sa pamamagitan ng contrata namin sa paggawa ng graded trail at pag-establish ng reforestation.

-1,62

7. Institutional Linkages

naisagawa po ng proyekto ang pakikipagugnay sa Regional Science and Information Task Force sa Region 12 (RSITAF) na may siyam (9) namiembro na ahensya ng gobyerno upang maqpahayag ng kanikanilang layunin ng kanilang opisina sa proyekto. Kasama po dito ang demonstrasyon ng ibat-ibang uri ngteknolohiya tulad ng paano paggawa ng sabon, paano paqgawa ng banana catsup, banana chip at coco vinegar, kasabay dito ang pagpalabas ng sine na nayon sa family planning o population at education at ang mga pamamaraan kung paano makonserba ang mga kabundukan.

Ang proyekto ay nakipagugnay din sa mga military sa lugar tungkol sa kanilang office equipment upang makatuloy sa pag-ayos ng daan papasok sa proyekto. Iba't-ibang ugnayan din ay naisagawa tulad ng pagkakaroon ng training sa area ng ibang ahensya ng gobyerno tulad ng UNDP at Department of Agriculture.

Ang pagkakaroon ng ugnayan sa Land Bank of the Philippines para pagkaroon ng loaning ay naisagawa din ngunit hindi maipaqpatuloy dahil ang mga magsasaka ay alanganin pa para mangutang.

8. Tenure

Ang nasasakupan ng proyekto ay pagkakaroon ng CSC.

B. Output

1. Farm Development

Ang mga teknolohiya na ipinarating sa amin ng RRDP ay siyang nagpapaunlad ng aming sakahan. Ang nagpapaalam sa amin nito ay sa pamamagitan ng pagsisikap ng project staff kung saan ay tinuruan kami sa actual. Maliban dito ay nagkaroon pa kami ng training dito at cross visit para magkaroon kami ng ideya.

2. Participation to Farm

Ang basihan kung nagkakaroon ng mabuting samahan ng mga magsasaka ay ang regular na pagkakaroon ng tulungan o pintakasi at ang may mataas na attendance tueing magkakaroon ng meeting.

3. Household Income

o Magkano ang taas ng inyong pangkabuhayan na kita sa inyong agroforestry farm development? Ano ang iba ninyong kinukunan?

Dati dati na wala pa ang proyekto ay nagdedepende lamang kami sa aming kita sa amingsakahan. Nang dumating na ang proyekto ay nagkaroon kami ng karagdagang kita. Ito ay sa pamamagitan ng bayad sa contract reforestation, graded trail, at sa ibang gawain ng proyekto. Dahil dito nagkaroon kami ng estimated na increase sa income na umaabot sa 20%.

o Anong parte ng proyekto ang nagbigay ng mataas na kita

Ang graded trail, crop production, reforestation, animal dispersal ay nagbigay ng mataas na kita sa amin dahil sa ito ay nagagawa namin sa madali sa pamamagitan ng samahan ng grupo.

4. Environmental Protection

o Ang RRDP-Upi AFP ba ay epektibo sa pagpababa sa nakakasira ng kalikasan tulad ng illegal logging at illegal burning?

Nagmula ng dumating ang RRDP staff ay nagkaroon ng knotrol ang pagkakaingin, at bawal na paglalagari ng kahoy sa lugar dahil ito ay hinuhuli ng taga proyekto.

o Mayroon bang kaibahan sa gamit ng mga lupain sa lugar? anong klaseng kaibahan?

Marami sa mga area noon ang bakanti, walang tanim kundi ang mga cogon na walang pakinabang, ngunit sa ngayon ay malinis na at sinasaka ng mga may-ari. Kapag hindi nila sinasaka ang kanilang area ay binibigyan sila ng ultimatum na i-recomenda ang kanilang CSC para sa cancellation.

5. Other Outputs

o Ano ang nagyari sa ipinamahagi na hayop ng proyekto? Ano ang dapat gawin? Bakit?

Walang problema.

o Anong nagyari sa pundo ng asosasyon? Paano ang pagmamalakad upang ito ay maimprobar?

Walang problema sa pundo ng asosasyon.

o Paano ang cross farm visit? Paano maimprobar? Bakit?

Maganda ang cross visit sana maimplementa ito sa tama na panahon na itinakda sa plano at mairelease ang pera para dito sa tama na panahon.

III FOLLOW-ON

1. Ano ang kasalukuyang status ng proyekto upang ang lugar ay madevelop. Sana magpatuloy pa ang proyekto. Sana magingmaganda pa ang sistema ng proyekto.

2. Mapalawak pa ang proyekto para magkaroon ng malaking area at maraming partisipanti? Bakit? Kailan?

Kung magpapatuloy ang proyekto ay lalong mapalawak ang area nito at magkakaroon ng maraming partisipanti. Sana magawa ito kaagad-agad para matuloy ang magandang samahan at maunlad na lugar.

IV LESSONS FOR ISFP, CFP, ETC.

3. Ano ang mga kaalaman ng RRDP-Upi Agroforestry Project na naangkop sa ISFP CFP?

Ang mga kaalaman ng RRDP Upi na naangkop sa ISFP ay ang pagimplementa ng agroforestry project.

Interviewers:

1. Noel G. Allado - Project Manager
2. Remie C. Centina - Farm Supervisor
3. Pompeo Pagayon - Farm Supervisor

Interviewees:

1. Salvador Glemao - Farmer
2. Roberto Ortega - Farmer
3. Aurelia Biokong - Farmer

COSINA AGROFORESTRY PROJECT

I PROCESS

The PRRA results was mainly a result of a recall made by the project manager. There was no actual PRRA conducted.

II RESULTS

A. Inputs

1. Project Site

Problems

- Tribal conflict/jealousy
- Social problems-drunkenness
- Crude farm practices/low production
- Unconcerned on forest conservation
- Working habit of Tala-andigs- 6:00 AM to 10:00 AM

Issues

- General perception that the government will get their farmlands if they participate in the project
- The approach of the staff is likened to that of the communist NPA

2. Project Staff

Qualification

- Technically capable thru formal education or work experience in related field.
- Rural background
- Have work experience in CBP
- Committed to work and live on site
- Should have strong decision making ability
- Can easily adapt in given site situation

Ideal No. of staff = 4

3. Project Funding

Delayed release of project funds resolved thru:

- Scheduling of activities - concentration of activities which require no funding and utilizing available local materials
- Establishment of credit lines
- Linkage with traders

4. Farmer Participation

- o House to house visitation and consultation
- o Training and field trips
- o Project must address the felt needs of the farmer
- o Project staff should live in the project site, work with the farmers and participate in community activities
- o Giving incentives to deserving farmers

5. Community Participation

- o Introduction of IGP
- o Workgroup formation to implement activities which are more easily done by a group.
- o Use of indigenous community organization to implement project activities
- o Use of material inputs as catalyzer for community activities
- o Market assurance of agricultural crops planted either indigenous or introduced

6. Upland Technology

a)
- o Communal Reforestation/individual refo
- o Pineapple and hot pepper production
- o Nursery development
- o Multi-story cropping
- o SWC plus SET (Soil Enhancement Technique)

b)
- o Use of farm trials
- o Conduct of trainings
- o Use of educational field trips
- o Provision of starter material such as seeds, suckers, fertilizers, etc.
- o Marketing assurance

7. Institutional Linkage

- o Coordination with GOs, NGOs, and private entities.
- o Marketing linkages with traders

8. Tenure - CSC holders

B. Outputs

1. Farm Development

Provision of starter materials such as seeds, pineapple suckers and fertilizer plus on farm trials plus training and field trips plus market assurance.

Indicators

- o Reflection of technology without staff involvement
- o More planting of forest trees and permanent crops where before farmers only engaged in planting annual crops

2. Participation of Farmers

- o Attendance in meetings increased
- o Lesser demand for project assistance
- o Increase in number of farmers adoptors

III. FOLLOW-ON

Immediate

- o Mass production of pineapple and hot pepper (chili)
- o Maintenance and establishment of forest plantation communal or individual
- o Market linkages with NGOs traders
- o Continuous on farm trials of different crops
- o Develop indigenous organization into viable org.

TAGUBONG AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted in the form of a group workshop involving the project manager and five (5) members of the Farmer Association (Board Chairman, Vice-Chairman, Committee Chairman and 2 members).

II RESULTS

A. Inputs

1. Project site

- o land status - court litigation presently pursued by DENR
- o Peace and order - unpredictable
- o Absentee claimants - farmlots still to be developed

2. Project staff

- o Preferably Agriculturist and Forester with technical capabilities to cater needs of farmers
- o First to set good example and demonstrations
- o Total commitment through willingness to stay at the site and helping resolve needs of community
- o Transparency

Evaluation of staff

- Output
- Good relation/rapport
- Able to express effectively and sacrifice extra hours in serving farmers

3. Project funding

- o Delayed release of funds
- o Bureaucratic delays/processing

4. Farmer participation

- o Participation/involvement of farmers in planning and implementation
- o Project should capture common interest of community and to realize these
- o Adoption of transparency
- o Continuous trainings/workshop, C.V.
- o Field-based staff promotes closeness to farmers
- o Input dispersal delivered on time

5. Community Participation

- o Indigenous activities (Tawili/Dagyaw) creation of workgroups with consultation with farmers
- o Provide technical and material input

6. Upland Technology

- o SWC
- o Bio-intensive garden/multi-cropping
- o Livestock integration
- o Basket composting
- o Communal reforestation

7. Institutional linkages

- o DA - regular visitation once a month
- o LBP
- o PCIC
- o Local government
- o NGO (BKFI)
- o DENR-ERDS (prop. passion fruit propagation coordinated with TTO) initial planting stock of 1,000 seedling
- o DECS - Tagubong Elementary - teaching grade schoolers on present environmental situation

8. Tenure

- o CSC awarded despite adverse claim/land status to provide tenurial security to farmers.

B. Output

1. Farm Development

- o Continuous education/Training programs
- o Active involvement/cooperation of community
- o Proper selection of technologies
- o Regular consultation with farmers and continuous technical and/or material assistance
- o Effective coordinative linkages with institution

Indicators:

- o Increase in production
- o Sufficiently meet household needs
- o More permanent crops planted
- o Farmer are more participative in the affairs of association/coop

2. Participation of Farmers

Indicators:

- o More attendance to meetings, assemblies, group activities
- o Continuous adoption of technologies without involvement of staff
- o Regular participation during deliberations
- o Officers rely on their collective decision with lesser input from staff

3. Household Income

- o Average increase of 30%

Agro component

- o Crop production
- o Bio-intensive garden
- o Animal raising

4. Environmental protection

- o Significant decrease in destructive activities such as kaingin and charcoal making, traditional method of cultivation

5. Other output

- o LIvestock dispersal a continuous activity; continuous technical support to assure success in animal raising

- o Revolving fund being used in the contracting of activities entered with DENR such as trainings, refo project, trail maintenance returns.

C.V. process to be very effective in adoption of technology, enhances enthusiasm of farmers thereby improving participation in project activities.

III FOLLOW-ON

1. At present, the Project is pursuing the remaining programmed activities such as communal reforestation and preparatory activities for the conversion o. their association into a cooperative. The community associations is presently being strengthened to effectively run the affairs/activities of the project in preparation for the turn-over of management for project continuity in later years. Physical accomplishments in terms of farm development can be viewed in most of the farmlots around the project area. Infrastructure supports are well in placed preparatory for the conduct of training programs at the site. Farmer

trainors group are more or less equipped although needs to be further enhance thru continuous conduct of trainings whereby they could further develop their skills and abilities.

The aspirations of farmers of Tagubong is to attain economic sufficiency, accessibility to market their farm products, continued support services from government and/or non-government agencies (i.e., technical and financial assistance) and a peaceful environment. In the attainment of these aspirations, government should continuously support the undertakings of the community in terms of technical and material inputs, to further sustain their enthusiasm to continue the gains they developed after the years of project implementation, and also to assist in further strengthening their linkages with financial institutions to continue livelihood projects.

2. Area expansion is far fetch considering the land status of the area still pending in court, the unpredictable peace and order condition and existence of PLA adjacent to the project. The area claimed by the Project advisory covers an area of more than one thousand hectares, covering several barangays and it would be unwise to expand until it has been resolved in court.

III LESSONS FOR ISFP, CFP, ETC.

a) Land status should be carefully checked, assured to be available as forest land, duly certified by appropriate agencies before approval of the project site.

b) A peaceful environment at a manageable peace and order condition should be considered before project entry.

c) Strong commitment of staff in assisting farmers coupled with sufficient technical expertise and good rapport to community participants should be considered in selecting area personnel.

Farmers Interviewed:

Renato Pacardo
Guillermo galvez
Norberto Selizar
Merlinda Pacardo
Alberto Bondauay

BABATNGON AGROFORESTRY PROJECT

I PROCESS

The PRRA was conducted through assembly meeting of the Farmer Associations.

II RESULTS

A. Inputs

1. Project Site

Issues	Resolved, How	Unresolved, Why
Acidity/Erosion	Lime Application	
Accessibility	Graded Trail Estab.	
Lack of Upland Tech	Training/Application of SWC Technologies	
Lack of Planting Materials	Seedling Dispersal from Agro + UPLB - clonal	
Lack of Farm Equipment	Carabao Dispersal + Loan equipment	
Lack of service vehicles	Project Motorcycle	
Lack of cohesiveness among officers + members of the association	Training leadership and management training, meetings/workshop + strengthening of association	
Absence of Safe Drinking water		On-process (Reprogram budget P30,000 sleeping quarter into materials for spring development project) + commitment from LG = P62,000 from deep well into materials
Tenancy Problem (75% are tenants)		Non-process (Partial list of farmers submitted to DAR for action)
Lack of staff to assist all covered barangay	Proper scheduling of project staff + assistance of farmer leaders	
Lack of opportunity to derive revolving fund	Refo maintenance and establishment, graded trail + mangrove refo project (contract)	
Lack of Financial Assistance for expansion of existing self-reliant livelihood project		Farmers associations were converted into coop thru coordination with CDA for loan assistance with Land Bank

2. Project staff

a. Qualifications

- o Expertise/technically capable
- o Committed to the project
- o Sociable and community development oriented
- o Good facilitator
- o With good moral character
- o Good rapport with the community

b. Evaluation

- o Attendance to the project assignment/barangay
- o Accomplishment vs targets

c. Kind of Expertise

- o Agriculturist or Forester
- o Any discipline who have the orientation on agroforestry

d. No. of staff - 4 staff

3. Project FUnding

- o Delayed release of payment specially labor contract, (only one inspector assigned for ERDS). Proper coordination and scheduling of the inspector and follow-up in the RO.

4. Farm Participation

a. Strategies

- o Teach by doing
- o Provide motivation/executive (field trip)
- o Concrete/realistic Memo Agreement to livestock dispersal program
- o Participatory planning
- o On-time assistance of farm inputs

b. Phases of project cycle

- o All phases of project cycle: Planning --> evaluation

c. Effective means of farmer participation

- o tiklos/Bayanihan

5. Community Participation

a. Strategies

- o Showing cohesiveness among farmer associations (officers and members)
- o Farm developments
- o Farmers to assist other farmers who are not members of the association. Ex. E>O. 444 (IFP)
- o Farmer must participate in community development i.e., procurement of school site/building establishment
- o Sharing of profit of the sound system of the association

b. Forms of community participation

- o Bayanihan/tiklos
- o Scheduled activities with the community

6. Upland Technology

a.o SWC = farmers observed the advantages with or without SWC (rainy season)
- o SST + SET = Soil condition
- o Multiple cropping = corn, string beans, peanut

b. How were technology extended

- o Trainings - lecture/OJT
- o Educational field trip
  - Visares AF project
  - Farmer to farmer approach (sharing of ideas among farmers
- o Field Visitation
  - By staff } regular monitoring/
  - By farmer leaders } evaluation

c. Impacts

- o SWC - 80% farmer participants adopted the technology
- o Change of land-use - for agricultural crops + forestry crops
- o Increased income

7. Institutional Linkages (IL)

Institutional Linkages	How did it came about	What resulted from it	What other forms of IL
o Proper coordination with DA, RO8, (FTC)	Meetings/workshop with farmers: - formation of coops - Leadership/ Management Training	Technical Assistance o Formed 4 existing coops o Pre-membership seminar o Action of farmers for/in preparation of project completion o Savings of training budget, utilized for coop training	o Technical Assistance - strengthening of coops from CDA
o Coordination with Land Bank	Comm./Meetings with farmers - Expansion for the existing livelihood project		o Financial Assistance (Loan)
o Coordination on LG	Participatory Planning with community and barangay chairman + RED, DENR	o Approved Reprogrammed Budget (₱30,000) o Commitment to pursue project (water development project)	

8. Tenure

o Issuance of land titled thru coordination with DAR, RO8. EVRDFI will assist so that issuance of land titles would be realized in coordination with DENR.

B. Outputs

1. Farm Development

What enhanced farm development?	Why?	Indicators	Why
o Poverty		o Change of soil condition	o Increase income
o Existing farm development of the farmers farmlots	o Majority of participants adopted upland tech.	o Change of land use	
o Livestock dispersal Program - Duck raising - Goat raising	o Policy o Farmers Orgn Priority/who adopted/followed policies	o Increase farm yield o Planting of permanent crops	o Additional income (potentials)
o Working animal	o Used during tiklos activity		

3. Household Income

a. Average increase of income per household is 20%.

b. Component of AF project

- o Farm development
- o Perennial crops
- o Livestock dispersal component
  - Duck raising
  - Goat raising

Why?

- o concentration of project activities at early stage of implementation
- o Still at expansion stage

4. Environmental protection

a. Yes, (burning) because farmer-participants learned the disadvantage of kaingin
   - adjacent barangay (outside project site) requested us to assist them in terms of various upland technology (CUFA)

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III FOLLOW-ON

1. Status of the project

- o Needs technical assistance from EVRDFI
- o Strengthening of the existing coops (4 coops)
- o Federation of the existing coops of the farmers - "Feedmill Project"
- o Training component of CFP - utilization of two (2) RRDP sites with "farmer trainors"
- o Avail loan assistance from Land bank (crops) - with assistance of EVRDFI staff.

2. Expansion of project - Yes, but needs assistance of EVRDFI staff especially new farmer-participants join the group/association

IV. LESSONS FOR ISFP, CFP, ETC.

Staff
- o Commitment, technically capable and other ideal qualifications for staff
- o The same level of understanding as to project policies, strategies on the project as a whole. Ex. No Dole-out system.

Farmers:
- o ID of farmer leaders (indigenous), communal responsibility
- o Open-minded
- o Provide motivation to active farmers/leaders - fieldtrip, priority in terms of livestock recipient

Project Site - public land

Inputs
- o Training
- o Fieldtrip/farmer to farmer approach
- o Participatory approach - all stages of the project (KFP, RRA)

b. Yes.

- o Farmer farmlots were planted with forest/fruit bearing tree species (cogonal to areas with F/FT species)
- o Presence of the existing upland technologies in combination with agricultural crops.

5. Livestock Dispersal

a. Carabao - all were dispersed to all covered barangays and delivered an offspring (caracalf)

Brgy Naga-asan/Maribago	-	1 head (horse
		1 head - with 1 offspring
Brgy Pagsulhuyon	-	1 head
Brgy Bagong Silang	-	1 head - with 1 offspring
Brgy Gov. Jaro	-	1 head
Brgy San Agustin	-	1 head - with 1 offspring
Brgy Taguite	-	1 head
		7 heads

Note: Carabaos are utilized thru proper scheduling among farmers = system: resolved
Needs: T.A./Monitoring of EVRDFI personnel/staff

b. Goat Dispersal - all were dispersed to all covered barangays, delivered "offsprings".

- o With contract of agreement
- o System: resolved
- o Policies of the association

Needs: TA/Monitoring of EVRDFI personnel/staff

c. Ducks dispersal - all were dispersed to all covered barangays

- o System: resolved
- o Policies of the association

Needs: T.A./Monitoring of EVRDFI staff

Revolving Funds

- o Invested to livelihood projects:
  - Coop store
  - Piggery
- o Deposited in the Land Bank of the Philippines (LBP), Tacloban City
- o Application/strengthening of financial management
  - Cash book system (coop training)
  - Monthly/regular audit/inventory (A/I committee)

SOGOD AGROFORESTRY PROJECT

I PROCESS

The participatory rapid rural appraisal was conducted for a period of 2 days in the project site using a multi-workshop procedure involving 4 community leaders and 2 project staff.

II RESULTS

A. Inputs

1. The Project Site

a) Tenant-landlord relationship
b) Local taxation - complaint about increasing yearly taxation by local government
   - o In May 1991 DENR representatives from CENRO announced that taxation will now be done by local government
   - o Referred to DENR
   - o Farmers were encouraged to discuss issue with claimants

2. The Project Staff

- o Agriculturist or anybody who has experience and knowledge in farming/agroforestry
- o Can relate well with people - establish good rapport with people
- o Emotionally stable
- o Ages 20-40; 30-50; 35-50
- o Staff size: at least 4

Evaluation:

- o Output vs targets - skills in planning, implementation and M and E
- o Impact to the people - acceptable, credible
- o Commitment - full grasp of the project and its over-all significance

3. Project Funding

- o Payment of outputs on GT and labor on infra
  Contract: per km outpost, for GT and WRD
  Amendment: weekly, one group completed their project before they asked for payment

4. Farmer participation

- o Teaching by showing
- o Clarification of expectations, participatory P & I
- o Timely delivery of services
- o Transfer of skills
- o Use of farms as demo sites

5. Community participation

- o Orientation meetings, needs assessments, group formation
- o Training - to increase level of awareness
- o Involvement of person in planning and implementation of activities like cattle fattening, seedling production, construction of GT, MPB, and water resources development
- o Attendance in cluster meetings and provision of technical assistance

Forms of community participation:
- Alayon
- Taqbo
- Palihug

6. Upland Technology

- o Cattle fattening -
- o SWC - contour rockwalling, contour hedgerows, drainage canals
- o BIG
- o Soil Fertility

- Cattle fattening - provided additional income to person in 4 days
- SWC - increased space of crop areas, controlled
- BIG - additional food supply and possible source of income
- Soil fertility - observed to improve soil conditions

Acquired thru training, practicum, tours

7. Institutional Linkages
- o Cluster and association plans - presented to DA, DTI, Land Bank, DSWD, DOH, UGMAD, DENR, CARE

Results

- o Feeding activity for pre-schoolers by DSWD
- o Mothers class by DOH
- o Soap making training by DTI
- o Land Bank offer of ₱1 M credit line for the association
- o DENR/CENRO response to association request to utilize guano and phosphate resources in the area for farms.

8. Tenure

- o CSC provision as developed by DENR. No other form was discussed, so far.

B. Outputs

1. Farm Development

- o Effects of canals to crop survival during heavy rains
- o Increased planting space as a result of rock walling
- o Cattle fattening - additional source of income for the people

2. Participation of Farmers

- o Attendance to regular meetings and weekly activities at the cluster nurseries
- o Completion of activities like MPB/water resources and graded trails where labor was sometimes subsidized
- o Clarification of roles and expectations helped gather participation

3. Household income

- o No data on this. Cattle fattening so far provided a recorded increase in income.

4. Environmental protection

- o Minimized burning
- o Presence of gardens .....
- o Planting of napier grass, kakawate along riverbanks or along GT. Those were used as forage.

5. Other Outputs

- o Association had formulated policy on tools dispersals. Association need to be provided skills on record keeping and eventually financial management.

- o Cross-farm visits should be properly designed. Its objectives, methods, effects should be clarified and results faithfully monitored.

III FOLLOW-ON

1. Generally on schedule, except for comm. infra and submission of CSC documents

o. CO - the association problems and solutions need to be translated into activities which they will manage.

Clusters need to be guided on how to effectively mobilize the groups themselves and resources.

- Technical assistance on project management and linkaging should be provided beyond RRDP.

o. Farmlot Development - effectivity of introduced technologies need to be assessed and sustained. Technical skills of farmers and their ability to transfer the skills need to be monitored and assessed.

- More monitoring, extension and skills training needed.

o. Farm Forestry - more farmers were joining the project; more were asking for seedlings. Some wanted to enlarge their plantations.

- Association should be mobilized to utilize their own resources to answer their need.

- Skills in maintaining their trees should be provided to people.

- Technical inputs on crop combination should be provided.

o. IGP - expansion of cattle fattening

- Need for breeding activity for improved source of stocks.

AYUNGON AGROFORESTRY PROJECT

I PROCESS

The PRRA results were mainly recall from meetings as reported by the project manager during the regional consultation workshop.

II RESULTS

A. Inputs

1. The Project Site

- o Low farm production
- o Lack of farm inputs
- o Adverse claims
- o Absence of potable water supply

2. The Project Staff

Qualifications:
- o technical capability
- o commitment

3. Project funding

Problems:
- o Release of funds - delay
- o Regional control

4. Farmer participation

- o Meetings/Workshops
- o Proper selection/Identification of key leaders
- o Cross visits/training/visit
- o Provision of revolving fund
- o Priority in employment/labor

5. Community Participation

- o Community development related activities (trails, refo, SWIS)
- o Organization of workgroups

6. Upland Technology

- o Tree farming - woodlot (along boundaries, contour bounds)
- o SWC
- o Dispersal (swine, goat)
- o Vegetable production

7. Institutional Linkages

- o Trainings - formation of farmers association
- o Attendance at BDC/MDC Meetings
- o Coordination with DENR (CENRO, PENRO, Regional)
- o Coordination with DA (dispersal/vaccination)

8. Tenure

- o CSC
- o FMLA

B. OUTPUTS

1. Farm Development

- o Training/OJT
- o Continued maintenance of SWC's
- o Soil Stabilization

2. Participation of Farmers

- o Increased membership in association
- o Regular attendance on meetings
- o Priority in employment

3. Household Income

- o SWC - seeds, suckers
- o Refo - direct income
- o Infra - trails, SWIS
- o Training/CV - catering

4. Environmental Protection

Off-farm refo area - formerly land-used grazing area
sugarcane - cash crops

5. Other Outputs

- o Dispersal - Breed upgrading (swine, goat)
- o Revolving Funds - Hands-on training on financial management
- o CV - the site is often visited by ISF, Negros Oriental
- o Construction of training hall completed

III FOLLOW-ON

- o 80% at least
- o Farm development/increase production
- o Trainings for ISFP
- o Expansion through AUFA, Inc.

IV LESSONS FOR ISFP, ETC.

- o ISF - Technologies/Approaches
- o CFP - Management/Technology/Approaches