

Republic of the Philippines **PROVINCE OF BOHOL** City of Tagbilaran

COMPREHENSIVE PROJECT PROFILE

I. PROJECT DESCRIPTION

1. Project Title

Establishment and Production of Fuelwood and Fruit trees to Enhance Economic and Ecological Activities in the Upland (Microwatershed Areas) of BIAD-I Municipalities

- 2. Project Type: Capital Forming Project
- 3. Total Area Coverage: 450 Hectares
- 4. Project Duration: 3 Years

5. Project Proponent

BIAD-I Municipalities, Bohol, Philippines Municipal Governments of:

Alburquerque	Loay
Antequera	Loboc
Baclayon	Maribojoc
Balilihan	Panglao
Corella	Sevilla
Cortes	Sikatuna
Dauis	Tagbilaran City
Lila,	

6. Project Components

• BIAD 1 Per Municipality Tasking and Methodology Application

ТА	SKS	METHODOLOGY and PROCESS	OUTPUTS
Mi	lestone 1		
1.	Project Orientation and Consultation		
•	Meeting with Brgy LGU and participating farm families within the target zones Documentation of consultation highlights	Consultative meeting	 Program of activities Project implementation plan Defined roles of bLGU, farm families and assisting NGO MOUS

ТА	SKS	METHODOLOGY and PROCESS	OUTPUTS			
2.	dentification of project participants		•			
•	Drafting of selection criteria Verification of project sites Screening and selection of project participants Development of project implementation	Focus Group Discussions Site Visits Participatory planning	 Agreed criteria List of participants Spot map showing relative location of proposed production farms 			
Mi	lestone 2		lainis			
1.	MOA Signing between the bLGU, sele	cted participants				
•	Meeting with the Parties to finalize the provisions of the MOU Signing of the MOU	Focus Group Discussions	 MOU signed by involved parties 			
4.	Conduct of Participatory Technology a	nd Enterprise Develop	ment Training cum			
	Planning for Integrated Fuelwood Prod	uction per Barangay				
•	Training Design Preparation Identification of Training Participants Identification of Training Materials, Venue, Logistics and Training Kits Development of Farm Plans Business Opportunities Identification Pre and Post Training Evaluation	Lectures, Workshops Plenary Discussions, Field Demonstration, Site Visits and Action Planning	 Resource Person(s) and Trainees identified Approved Training Designs Training kits prepared Farm Plan formulated Potential enterprise identified 			
Mi	lestone 3					
5.	Nursery Preparation and Establishmer	nt				
•	Nursery establishment Construction of nursery house Construction of germination beds, seedling shade, potting shade and hardening beds Construction of poly propagator Seedling production Purchase and/ or collection of seeds and seedlings Purchase and/ or collection of seeds and seedlings Soil potting preparation Potting Seed germination Transplanting of germinated seedlings Hardening of seedlings 	Alayon or group works	 Nursery house facilities constructed Project seedling requirements are sourced from the nursery 			
6	Watering of seedlings Pest and disease control		 Health of seedlings are maintained 			
0.	Strip brushing bedgerows	Alayon or group	Site inspection report			
	establishment, clearing, sticking and diaging, weeding	works	from the Project Team			
7.	Actual implementation of Farm Plan be	er participant				
•	Validation and review of farm plans Scheduling of activities Provision of technical assistance	Mobilization of participants On-the-job skills trg.	 Schedule of activities implemented Skills and techniques applied in farming 			
	M	ilestone 4				
8.	Project Maintenance, Monitoring, Doci	umentation and on-goin	ng Technical Assistance			
-	Periodic monitoring of activities	Site visits	 Monitoring reports 			

TASKS		METHODOLOGY and PROCESS	OUTPUTS
•	Identify and provide solutions to problems encountered Provide over-all coordination and supervision	Project assessment Feed backing	 Technical assistance provided Unified understanding of project progress

7. Project Location

Identified Watershed Areas of Respective BIAD-1 Municipalities (Alburquerque, Antequera, Baclayon, Balilihan, Corella, Cortes, Dauis, Lila, Loay, Loboc, Maribojoc, Panglao, Sevilla, Sikatuna, and Tagbilaran City).

Geographic Location

The Bohol Integrated Area Development (BIAD)-I is composed of 14 municipalities and 1 city located in the southwestern part of the province, otherwise known as the Southwestern Bohol Development Zone.



Land Area

BIAD-I has a total land area of 80,073 hectares, that represents about 19 percent of the total land area of the province (411,726 has).

Population

As of the latest 2007 NSO census of population, the total population of BIAD-I municipalities and 1 city is 314,302 with an average annual growth rate of 1.6, an increase of approximately 12 percent from the 2000 census of population which is 272,666. Tagbilaran City has the highest population of 92,297 followed by the municipality of Dauis, with a population of 36,525. Likewise, the municipality of Sikatuna has the lowest population of 6,335, having also the smallest land area of 2,675 hectares. By year 2015, the population of BIAD-I will reach 367,790.

Watershed

There are 2 major watersheds that is within BIAD-I area. The Loboc watershed and the Abatan watershed. The Loboc watershed forest reserve covers an area of 10,387 hectares in



12 municipalities. The BIAD-I municipalities that lies within the watershed is composed of: Balilihan, Loboc and Sevilla. While Abatan watershed management area covers 36,626 hectares in the municipalities of Cortes, Maribojoc, Balilihan and Antequera. Both watersheds have been reported to have high erosion rates.

II. PROJECT STATUS:

A proposed BIAD-1 project.

III. PROJECT JUSTIFICATION

1. Project Background

A watershed, or sometimes called drainage basin, is technically defined as the region of land where water from the rain drains downhill into a body of water. It is separated from other drainage basin by the topographical divide or ridges, mountains and hills which are known as water divide. Furthermore, in areas adjacent to stream banks or in highly erodible areas (30 meters on both sides of the drainage), 30 meters from rivers or its tributaries – designation of these areas as not being suitable for timber harvesting and any other activity such as fuelwood extraction should be imposed if not strictly enforced by the concerned government agencies or even the constituents themselves in order to protect the watershed ecosystem.

Accordingly, the increasing demand for fuelwood from a growing population in the micro-watersheds communities causes a great threat to its natural ecosystem. The traditional practice of fuelwood gathering as an income generating activity is exerting pressures on the natural vegetation. This has become a major concern to be considered in relation to efforts towards sustainable management of our watersheds.

Fuelwood gathering in the watershed area is beyond control despite imposition of stiff penalties. One alternative that could help reduce the negative impact of rampant fuelwood gathering to the watershed ecosystem is through the development of community-based sustainable fuelwood or non-timber production system.

This project will mobilize farmers who are living and tilling in these micro watersheds in the establishment of non-timber forest production system in their individual farmlands. The establishment of non-timber forest production system will include mass planting of selected high calorific fruit trees and local fuelwood species, intercropping of high commercial value plant species and introduction of fuelwood harvesting system. Target project participants will also be provided with capability building activities to insure accomplishment of project targets and objectives. It is likewise to be highlighted that the project altogether discourages the use of petro-chemicals, inorganic fertilizers and pesticides as these may negatively impact on the quality of water at pumping stations.

As an agro-forestry based project, operations are to be focused on the farm families within upland Barangays and to be viewed as enterprises in themselves.

2. Project Significance

The project will pilot non-timber forest production system to minimize destruction of the watershed ecosystem while at the same time augment and stabilize farmers' sources of income.

Based on actual observation, community consultation/participation and economic analysis, the following are the potential local species of trees to be used by the project.

- Gliricidia sepium, commonly known as madre de cacao or kakawate a fast growing specie, nitrogen fixing and has multiple uses. Madre de cacao can be planted by cuttings, it is well adapted to the proposed project sites. Madre de cacao is the main source of fuel wood and a good raw material for charcoal making. It has the ability to coppice every two years after the trees are well established.
- Ceiba pentandra (L) kapok tree, silk cotton tree or locally known as doldol. Ceiba tree grows in many types of soil even in a barren land. It is drought resistant, easy to reproduce and requires minimal management during its vegetative development. Flowering generally begins when trees are five (5) to six (6) years old. Ceiba flower is very attractive to birds and most especially bats that serves as pollinator. Aside from its favorable characteristics, Ceiba has economic value for being an important source of natural fiber or silk cotton called *kapok*. This is used for pillows and mattresses. Demand for its fiber or silk cotton is high from local manufacturer of pillows and mattresses.
- Leucaena leucucephala or ipil-ipil is one of the most extensively cultivated leguminous trees in the Philippines. Adapted to a wide range of lowland and upland sites, it has variety of uses including timber, fuelwood, forage and organic fertilizer. Ipil-ipil is well suited to management at close spacing for fuelwood and fodder production. In a period of three (3) years, cutting of ipil-ipil can be done. One of the peculiarities of this tree is its ability to coppice vigorously. Severe defoliation caused by the sap-sucking leucaena psyllid limits its vegetative development.
- Other fruit bearing trees that can easily adapt to the terrain and types of soil in target sites and has economic earning potentials for the local residents are likewise to be planted. These are some of the known tree species: star apple or kaimito, jackfruit or nangka, guyabano, rambutan and marang.

- With the recent initiatives to identify fuel sources other than crude oil, the *jatropha curcas* or locally known as tuba-tuba is considered one of the main sources of bio-diesel to be extracted from its seeds. This plant is adaptable to the terrain and soil type. With the existing demand for its seeds, the economic potential is large. Sixty thousand seedlings can be planted in 50 hectares. Harvesting of seeds can be done in every six months with three kilograms of seeds producing one liter of bio-diesel.
- Bamboo stands are found along the river banks or riparian zones. Present utilization of bamboo is mainly for household purposes as building materials and for food. Even while not maximized in commercial quantities, bamboo stands along the Anislag river and its tributaries are fast disappearing by excessive exploitation. Conscious efforts to systematically promote the propagation of bamboo and rehabilitation of bamboo stands in riparian zones have just been recently undertaken as part of effective soil and water conservation measures.

3. Project Linkages

The proposed package project will complement and directly support the Province-Wide Watershed Management Framework for the Province of Bohol which has an overall goal of environmental protection. However, the province-wide framework and its implementation schedule do not preclude other water management efforts from being initiated or continuing with other resources and leadership

4. Project Objective

The main objective of the project is to establish household level Non-timber Forest Production Farm that is envisioned to minimize the clearing of natural growth forest and vegetation, minimize soil erosion and provide alternative and sustainable income generating activities for farmers in the upland Barangays.

5. Sectoral Objectives

- To maintain and develop protection forests
- To involve communities and LGUs in watershed protection
- To institutionalize watershed protection
- To uplift the socio-economic conditions of watershed residents

IV. PROJECT FINANCING

1. COST ESTIMATES FOR THE DIFFERENT COMPONENTS:

a) COST STANDARD FOR AGROFORESTRY

(Fruit tree/kapok based with fuel wood, 10m x 10m and 2m x2m spacing respectively)

	MA	TERIAL CO	DST		TOTAL		
		UNIT	COST	MAN-	COST/	COST/	COST/
ACTIVITY	INPUIS	COST	HA.	DAYS	MD	HA.	HECTARE
A. OPERATIONAL COST							
1. NURSERY OPERATIONS							
Procurement of seed/lings							
o fruit trees	100 sdls.	60.00	6000.00				6,000.00
o fuel wood	1200 sds	0.30	360.00	½ md	175.00	87.50	447.50
Nursery bed preparation	8 sq. m.			1 md	175.00	175.00	175.00
Sowing of Seeds				½ md	175.00	87.50	87.50
Gathering/preparation of soil	1.89 cu.m.			2 md	175.00	350.00	350.00
Potting of seedlings	1200 pots p.	0.25	300.00	4 ½ md	175.00	787.50	1,087.50
Prep of pot beds & pot set up	bags			¼ md	175.00	43.75	43.75
Maintenance of seedlings	seedlings			9 md	175.00	1,575.00	1,575.00
Fertilizer application	6 kgs.	10.00	60.00	¼ md	175.00	43.75	103.75
Tools			50.00				50.00
SUB TOTAL			6,770.00			3,150.00	9,920.00
2. PLANTATION							
ESTABLISHMENT							
Spot brushing for fruit trees	100 spots			2 md	175.00	350.00	350.00
Brushing	2200 sq. m.			7 ½ md	175.00	1,312.50	1,312.50
Staking	1100 stakes			2 ½ md	175.00	437.50	437.50
Hole digging for fruit trees	100 spots			2 md	175.00	350.00	350.00
Hole digging for fuel wood	1100 spots			7 ½ md	175.00	1,312.50	1,312.50
Seedling transport/hauling	1210 sdlgs			5 ¼ md	175.00	918.75	918.75
Planting	1100 sdlgs			8 md	175.00	1,400.00	1,400.00
Tools and materials			100.00				100.00
SUB TOTAL			100.00			6,081.25	6,181.25

3. PLANTATION MAINTENANCE							
and PROTECTION							
Ring weeding/spot cultivation							
Year 1 (3 passes)	1100 spots			30 md	175.00	5,250.00	5,250.00
Year 2 (3 passes)	1100 spots			25 md	175.00	4,375.00	4,375.00
Year 3 (2 passes)	1100 spots			10 md	175.00	1,750.00	1,750.00
Replanting (20%)	220 sdlgs	5.00	1,100.00	7 md	175.00	1,225.00	2,325.00
Fertilizer application							
Year 1 (2 passes)	1100 spots	10.00	1,080.00	3 md	175.00	525.00	1,605.00
Year 2 (2 passes)	1100 spots	10.00	1,080.00	3 md	175.00	525.00	1,605.00
Patrol Work				1.5 md	175.00	262.50	262.50
Tools			50.00				50.00
SUB TOTAL			3,310.00			13,912.50	17,222.50
4. INFRASTRUCTURE							
Nursery facilities (1/300 has)			200.00	1 md	175.00	175.00	335.00
Graded trail (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Footpath (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Fire line const'n (10m width)	500 sqm.			4 md	175.00	700.00	700.00
Fire line maintenance				3 md	175.00	525.00	525.00
Bunkhouse (1 unit/300 has)			50.00	½ md	175.00	87.50	137.50
Look-out tower (1 unit/300 has.)			50.00	¼ md	175.00	43.75	93.75
SUB TOTAL			300.00			1,706.25	2,006.25
TOTAL OPERATIONAL COST			10,480.00			24,850.00	35,330.00
5. PROJECT MANAGEMENT							
COST (15% of TOC)							
First Year (40% of PMC)							2,119.80
Second Year (30% of PMC)							1,589.85
Third Year (30% of PMC)							1,589.85
SUB TOTAL							5,299.50
GRAND TOTAL							40,629.50

b) COST STANDARD FOR AGROFORESTRY (Pure Fruit trees e.g. kaimito, nangka, guyabano, rambutan and marang at 4m x 4m spacing)

	MA	FERIAL CO	DST		LABOR CO	DST	TOTAL
		UNIT	COST	MAN-	COST/	COST/	COST/
ACTIVITY	INPUIS	COST	HA.	DAYS	MD	HA.	HECTARE
A. OPERATIONAL COST							
1. NURSERY OPERATIONS							
Procurement/handling of							
certified seeds	750 seeds	0.50	375.00	½ md	175.00	87.50	462.50
Nursery bed preparation	8 sq. m.			1 md	175.00	175.00	175.00
Sowing of Seeds	750 seeds			1⁄2 md	175.00	87.50	87.50
Gathering/preparation of soil	1.18 cu.m.			2 md	175.00	350.00	350.00
Potting of seedlings	750 p. bags	0.25	187.50	3 md	175.00	525.00	712.50
Prep of pot beds & pot set up	750 pots			¼ md	175.00	43.75	43.75
Maintenance of seedlings	750 sdlgs.		60.00	5 ½ md	175.00	962.50	1,022.50
Fertilizer application	3.75 kgs.	10.00	37.50	1⁄4 md	175.00	43.75	81.25
Tools	_		50.00				50.00
SUB TOTAL			710.00		_	2,275.00	2,985.00
2. PLANTATION							
ESTABLISHMENT							
Brushing	1250 sq. m.			4 ¼ md	175.00	743.75	743.75
Staking (600 spots/md)	625 stakes			1 ¼ md	175.00	218.75	218.75
Hole digging (150 spots/md)	625 holes			4 ¼ md	175.00	743.75	743.75
Seedling transport/hauling	688 sdlgs			3 md	175.00	525.00	525.00
Planting	625 sdlgs			4 ¼ md	175.00	743.75	743.75
Tools and materials			100.00				100.00
SUB TOTAL			100.00			2,975.00	3,075.00
3. PLANTATION MAINTENANCE							
and PROTECTION							
Ring weeding/spot cultivation							
Year 1 (4 passes)	625 spots			25 md	175.00	4,375.00	4,375.00
Year 2 (4 passes)	625 spots			20 md	175.00	3,500.00	3,500.00
Year 3 (2 passes)	625 spots			10 md	175.00	1,750.00	1,750.00
Replanting (20%)	125 sdlgs	5.00	625.00	3 md	175.00	525.00	1,150.00

Fertilizer application							
Year 1 (2 passes)	625 spots	10.00	1,250.00	1.5 md	175.00	262.50	1,512.50
Year 2 (2 passes)	625 spots	10.00	1,250.00	1.5 md	175.00	262.50	1,512.50
Patrol Work				1.5 md	175.00	262.50	262.50
Tools			50.00				50.00
SUB TOTAL	2,815.00			13,912.50	16,727.50		
4. INFRASTRUCTURE							
Nursery facilities (1/300 has)			200.00	1 md	175.00	175.00	335.00
Graded trail (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Footpath (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Fire line const'n (10m width)	500 sqm.			4 md	175.00	700.00	700.00
Fire line maintenance				3 md	175.00	525.00	525.00
Bunkhouse (1 unit/300 has)			300.00	½ md	175.00	87.50	387.50
Look-out tower (1 unit/300 has.)			50.00	1⁄4 md	175.00	43.75	93.75
SUB TOTAL			550.00			1,706.25	2,256.25
TOTAL OPERATIONAL COST			3,925.00			20,868.75	25,043.75
5. PROJECT MANAGEMENT							
COST (15% of TOC)							
First Year (40% of PMC)							1,502.63
Second Year (30% of PMC)							1,126.97
Third Year (30% of PMC)							1,126.97
SUB TOTAL					3,756.57		
GRAND TOTAL							28,800.72

c) COST STANDARD FOR BAMBOO (5 X 5 meter spacing)

	MA	TERIAL CO	DST		TOTAL		
		UNIT	COST	MAN-	COST/	COST/	COST/
ACTIVITY	INPUIS	COST	HA.	DAYS	MD	HA.	HECTARE
A. OPERATIONAL COST							
1. NURSERY OPERATIONS							
Gathering of cuttings	480 cuttings	5.00	2,400.00	9 ½ md	175.00	1,662.50	4,062.50
Gathering/preparation of soil	2.44 cu.m.			5 md	175.00	875.00	875.00
Potting of soil	480 p. bags	0.25	120.00	2 ½ md	175.00	437.50	557.50
Potting of cuttings	480 pots			3 ¼ md	175.00	568.75	568.75
Maintenance of cuttings	480 pots			3 ½ md	175.00	612.50	612.50
Fertilizer application	4.80 kg.	10.00	480.00	1⁄4 md	175.00	43.75	523.75
Tools			50.00				50.00
SUB TOTAL			3,050.00			4,200.00	7,250.00
2. PLANTATION							
ESTABLISHMENT							
Brushing (strip 2m wide)	800 sq. m.			3 md	175.00	525.00	525.00
Staking (400 spots/md)	400 stakes			1 md	175.00	175.00	.175.00
Hole digging (100spots/md)	400 holes			4 md	175.00	700.00	700.00
Cutting transport/hauling	440 cttgs			15 md	175.00	2,625.00	2,625.00
Planting (60/md)	400 cttgs			7 md	175.00	1,225.00	1,225.00
Tools and materials			200.00				200.00
SUB TOTAL	-		200.00			5,250.00	5,450.00
3. PLANTATION MAINTENANCE							
and PROTECTION							
Ring weeding/spot cultivation							
Year 1 (4 passes)	400 spots			16 md	175.00	2,800.00	2,800.00
Year 2 (4 passes)	400 spots			13 ¼ md	175.00	2,318.75	2,318.75
Year 3 (2 passes)	400 spots			5 ¼ md	175.00	918.75	918.75
Replanting (20%)	80 cttgs	15.00	1,200.00	6 md	175.00	1,050.00	2,250.00
Fertilizer application							
Year 1 (2 passes)	400 spots	10.00	480.00	1 md	175.00	175.00	655.00
Year 2 (2 passes)	400 spots	10.00	480.00	1 md	175.00	175.00	655.00

Patrol Work				1 ½ md	175.00	262.50	262.50
Tools			50.00				50.00
SUB TOTAL			2,210.00			7,700.00	9,910.00
4. INFRASTRUCTURE							
Nursery facilities (1/300 has)			500.00	1 md	175.00	175.00	335.00
Graded trail (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Footpath (1m wide, 50m/ha)	50 meters			½ md	175.00	87.50	87.50
Fire line const'n (10m width)	500 sqm.			4 md	175.00	700.00	700.00
Fire line maintenance	500 sq. m.			3 md	175.00	525.00	525.00
Bunkhouse (1 unit/300 has)			350.00	½ md	175.00	87.50	387.50
Look-out tower (1 unit/300 has.)			50.00	¼ md	175.00	43.75	93.75
SUB TOTAL			900.00			1,706.25	2,606.25
TOTAL OPERATIONAL COST			6,360.00			18,856.75	25,216.75
5. PROJECT MANAGEMENT							
COST (15% of TOC)							
First Year (40% of PMC)							1,513.01
Second Year (30% of PMC)							1,134.75
Third Year (30% of PMC)							1,134.75
SUB TOTAL							3,782.51
GRAND TOTAL							28,999.26

2. BUDGET SUMMARY

COMPONENTS		TOTAL AREA COVERAGE	COST STANDARD per HECTARE	PROJECT COST/ HECTARE		
•	Fruit tree-based w/ fuel wood	10 hectares	40,629.50	406,295.00		
•	Fruit / Industrial trees	10 hectares	28,800.72	288,007.20		
•	Bamboo Plantation	10 hectares	28,999.26	289,992.60		
	TOTAL HECTARES	30 hectares	TOTAL COST/ LGU	984,294.80		

THEREFORE, THE TOTAL PROJECT COST WILL BE: Php 984,294.80 X 15 Municipalities = Php 14,764,422.00

3. FUNDS NEEDED: PHP 14,764,422.00

Note:

For purposes of a just and equitable sharing of fund allocation from prospective donors, it is assumed that the aforementioned BIAD-1 that comprises 15 Municipalities will be utilizing the same cost standard for materials and labor costs per hectare. Furthermore, the same area allocation of 30 hectares will be allotted by each respective municipality for the three types of plantation, to wit: fruit tree-based with fuel wood, fruit/industrial trees, and bamboo plantation.

4. COUNTERPART FUNDING

Counterpart funding from the respective municipalities comprising BIAD-1 will be in the form of Technical assistance and Manpower that will be utilized to service the project activities. Prior to these, trainings shall be conducted to capacitate organizations.

V. PROJECT BENEFITS AND COSTS

1. Beneficiaries

The direct beneficiaries of the project are the farmer's of the watershed areas covering the 15 BIAD municipalities which would minimize destruction of the watershed ecosystem while at the same time enhance and stabilize farmer's income.

2. Social Benefits

The proposed project that delves in the production of fuelwood and fruit trees that enhance economic and ecological activities in watershed areas covering the 15 BIAD municipalities will eventually improve social conditions for the constituents. This is made possible through the proposed project in such a way that it will promote water resource protection and water quality. In this way there could be a sustainable source of water not only for the constituents along the watershed areas but all throughout the province as well.

3. Economic Benefits

The proposed project will economically benefit the farmers in microwatershed areas in such a way that activities such as the mass planting of selected high caloric fruit trees and local fuelwood species, inter-cropping of high commercial value plant species, and introduction of fuelwood harvesting system will be viewed as economic enterprises directed towards farm families within upland barangays.

4. Social Costs

There is no unforeseen social cost of the proposed project because it directly involves the farmers and the Barangay officials within the target zones.

4. Economic Cost

There are no perceived problems of any sort in relation to the project's effect on the economy considering the fact that it is an income generating project particularly for the farmers. Generally, project such as this (massive tree planting) is always socially, economically and environmentally friendly.

VI. PROJECT IMPLEMENTATION

1. Responsible Agencies

The proposed project which has an overall goal of environmental protection with an overarching effect on economic, social, and ecological dimensions of a given locality or autonomy will foster the spirit of collaboration. Under this precept, the concerned BIAD 1 LGUs being the proponents of the project will be supported by line agencies such as the Department of Environment and Natural Resources (DENR), Provincial Agriculture Office (PAO), Bohol Environment Management Office (BEMO), Provincial Planning and Development Office (PPDO), and the respective MPDOs and MAOs of the 15 LGUs of BIAD 1.

2. Implementation Schedule

• Tasking Schedules

TASKS		YEA	R I		YEAR II				YEAR III			
	1	2	3	4	1	2	3	4	1	2	3	4
M	iles	tone) 1									
1. Project Orientation/Consultation												
2. Identification of Project Participants												
M	iles	tone	e 2									
3. MOU signing between and among Project actors												
4. Conduct of Participatory Technology												
and Enterprise Development												
M	iles	tone) 3									
5. Nursery Preparation and Establishment												
6. Land Preparation and Maintenance												
7. Actual implementation of Farm Plan per												
participant												
M	iles	tone	e 4									
8. Project Maintenance, Monitoring,												
Documentation and on-going Technical												
Assistance												

• Monitoring and Evaluation Scheme

The monitoring and evaluation system to be adopted by the project shall primarily be based on the Project Implementation Plan.

In particular project components or sub-projects, the sub-project feasibility study and its detailed implementation plan is made as the basis for monitoring. The following indicators shall also be considered in the monitoring process:

Project Component	Indicators
Strengthening of Community	number of organized groups; number of
Organizations (to depend on	relevant trainings conducted; level of
needs as expressed by participating farm families)	organizational capacity to co-manage project activities
Indigenous Tree Nurseries	number of indigenous tree nurseries
	established and maintained; income derived
Non-timber Forest Production	number of fruit trees planted and maintained
Farm	and number of linear meters of fuel-wood
	production hedgerows planted
Enterprise Development	number of enterprises established utilizing
	locally available products and processes
Monitoring and Evaluation	number of participatory monitoring and
	evaluation conducted

The data gathered shall serve as inputs for the following monitoring documents:

- Project Summary Assessment this is a monthly report on the enterprise or component performance prepared by the Program Officer;
- Status Report is a quarterly detailed report to be prepared by the Program Manager/Director. This serves as the basis for project discussion between the LGU and the Funder..
- The semi-annual report and the annual report are to be jointly prepared by the Project Staff members. These reports are evaluative in nature and are based on the:
 - a. Sub-project implementation plan;
 - b. Monthly project summary assessment
 - c. Quarterly status report
 - d. Baseline study
 - e. Design, assumptions and objectives of the project

All these reports are to be submitted to partner agencies and the participating barangay LGUs and community groups.

• Organization and Management

A Program Manager/Director is responsible for the effective management of all project activities. S/He is to be assisted by the members of the Project Implementing Team. The following are the functions of the other team members:

- Finance Officer is responsible for the required financial documentation of all transactions, facilitates and monitors all investments and accountabilities of the project;
- Administrative Officer is responsible for the delivery of the operational and secretarial requirements of the project;
- A full time Project Coordinator shall be hired and shall supervise the day-to-day operations of the project. S/He shall coordinate, conduct meetings and consultation activities with the participating farm families
- The participating farm families shall directly manage the specific projects in their respective areas.

• Project Sustainability/ Phase-Out Mechanism

The community-based organizations shall directly manage, operate and benefit from the project components assigned to them even after the one-year timeframe of this project. The project foresees these organizations as the main players in the implementation and the continuity of the proposed project.

The following steps/measures shall be followed in order to have sustained operations after the end of this project:

> On human resource/institutional requirement:

The manpower used to service the project activities shall mainly come from the community organizations. The same manpower shall be employed to undertake the activities after the project. As mentioned, trainings shall be conducted to enhance the capability of the organizations.

Specifically, the management of the nurseries and the maintenance of the demonstration plots, the check dams and water impoundings shall be assigned to these community-based associations in coordination with the barangay LGUs.

To ensure the sustainability of the proposed project, the LGU shall regularly monitor the project related activities in the areas and provide relevant technical information and advices for ongoing and other future activities.

> On the technical requirements:

Part of the community-organizing component is the development of the organizations' capacity to engage in particular tasks like resource assessment and resource use monitoring. These tasks would ensure the communities' compliance of the set project objectives. The technical skills involved in these tasks shall be imparted to the community organizations at the onset of the project.

> On financial resource:

The consolidation of existing organizations in project sites, the formation and transformation of new ones into village type corporations is aimed at ensuring sustainability of this project. Sustainability is here defined to mean the continuance of project results once external funding has ceased. This can be considered in terms of the following:

Financial viability of the project as indicated in the ability of the project to cover the cost of its operations and maintenance from the proceeds of the various revenue generating components (indigenous seedling nurseries; share in the proceeds from the sale of fuelwood and products from the fruit trees; sand, gravel and garden soil from desilting the gully check dams and annual water user's fee from the water impounding)

- **a.** Continuation of the approaches as integral part of the over-all management of the project where efforts are pursued to harmonize environmental protection with economic development.
- **b.** Capital Build up Scheme. All loans or financial advance whether for individual or group efforts are to be charged an 18% administrative fee per year and paid based on an amortization schedule particularly drawn for a loan. Total funds collected after full settlement of loans are to be prorated and applied as follows:
- Individual loans:
- 02% : Rebated to loanee when pays on time
- 08% : Individual capital build-up and is deposited with the organization in the loanee's account as fixed deposit
- 08% : Organizational capital build up and intended to be used as additional capital funds for income generating initiatives
- Group loans:
- 02% : Rebated to organization for prompt payment
- 16% : Organizational capital build up and intended to be used as additional capital funds for income generating initiatives

To generate group participation and patronage in availing of goods and services trade by an enterprise in the project site, another sharing scheme is devised on the net income of enterprises cooperatively managed by a group. The following:

- 50% : Administrative fee to the management group of a particular enterprise
- 10% : Educational/scholarship fund applied to expenses related to

skills, technology transfer, values formation and other educational activities by either coop members or their qualified dependents on short term technical course in partnership with local educational institutions

- 10% : Development fund for other community non-income generating activities
- 30% : Patronage refunds to be prorated proportionately to members to be computed based on an applicable formula for certain enterprises

3. Legal and Political Feasibility

The project has no identified legal obstacle and political opposition since the project is envisioned to minimize clearing of natural growth forest and vegetation, minimize soil erosion and provide alternative and sustainable income generating activities for farmers.

4. Environmental Clearance

Environmental Clearance and Water Rights Permit will be secured from DENR if needed.

5. Social Adaptability

The project has a two-pronged approach which is to improve the quality of life of the families directly involved in fuelwood gathering and reduce the negative impact of the income generating activity (fuelwood gathering) in watershed areas through the development of community-based sustainable fuelwood or non-timber production system. Therefore, public consultation will not be needed prior to the implementation of the project.

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