

Republic of the Philippines  
Province of Bohol  
MUNICIPALITY OF ALICIA, BOHOL

Comprehensive Project Profile

1. **Project Title :** **Balancing Forest Management and Livelihood Needs**  
***(BAFOMA-LINE )using Community-based and Family-Approach***  
***Replanting Project (as Tree Resources for Economic and***  
***Environmental Security)***

**Project Location:** Binabaye, Cambaol, Alicia, Bohol

2. **Background and Rationale:**

Alicia is a 5<sup>th</sup> class municipality located in the eastern part of Bohol, 104 kilometers from the City of Tagbilaran. It is bounded on the north by the town of Ubay, east of Mabini, south of Candijay and west by the town of Pilar, covering an area of 11,450 hectares. Of the total land area 96% is alienable and disposable and 4% is timberland or forestland. The climate of the municipality is classified as Type IV under the Corona classification, which is characterized by evenly, distributed rainfall throughout the year. The municipality is part of Caroud Watershed, the fifth largest watershed with a span of 20,472 hectares located in the eastern part of the province. It provides significant water source for the hundred thousand households or residents in the catchment and supplies the irrigation requirements of the Bohol Irrigation Projects in: Malinao Dam, Pilar; Bayongan Dam, San Miguel; Capayas Dam, Ubay; Ilaya Dam, San Pascual Ubay; Cayacay Irrigation, Alicia; and irrigation facilities in Canawa, Cadapdapan, Gabayan, Budbod, Tambungan, Candijay.

The primary problem of the environment sector in the municipality is the declining forest cover of the area due to timber poaching for housing construction and fuel wood needs and the inability to institute sustainable programs to restore vegetative cover, soil erosion, low productivity and inadequate supply of water. Also the handicraft industry, which utilizes minor forest products like bamboo have resulted in the decline of the areas biodiversity. This needs a raw material replenishment program and to establish and adopt a long term effective watershed planning and management that can provide desired goods and services without adversely affecting soil and water resources.

Referring to the ranking of municipalities based on the 12 Poverty Indicators in the Province of Bohol, Alicia falls number 3 among the 20 top most deprived municipalities. This means that Barangay Cambaol where the proposed replanting project is located, ranked number three (3) of the 15 deprived barangays. This implies that 88% or 178 households falls below income threshold, 83% or 167 families living below food threshold, 88% or 178 households with unsafe drinking water, 94% or 189 families have unsanitary toilet and 26% or 52 households do not own the lot.

It was in June 5, 2005 that the Bohol-wide Reforestation Summit was conducted in Barangay Binabaye, Cambaol, Alicia, with a massive tree planting covering a total area of 16 hectares with a 95% survival rate. The existing project is currently managed by the Municipality of Alicia and the barangay of Cambaol. It shows that the area is suitable to any kind of species for plantation. Likewise the agro-climatic characteristics of the town make it an ideal site for agro-forestry activities that can support the requirements of cottage industries such as handicraft making. Consistent with its biophysical conditions, socio-economic, cultural and political realities, the integration of agriculture and natural resources-based activities into a single system should be considered to ensure balance between environment, society and economy.

One of the effective programs of the local government unit of Alicia is to rehabilitate the area that has been destroyed by the uncontrolled dwellers, and slash and burn farming or kaingin practices, is reforestation using the community-based or family approach strategy. The proposed project is an expansion of Cambaol reforestation with an area of 40 hectares, which aimed at developing socially-relevant and self-reliant poor farmer families in the community by providing them the skills on forestry management and operation.

The proposed tree plantation project is located at Barangay Cambaol, Alicia, Bohol with a total land area of 1,499 hectares. The area for the project covers 40 hectares for its expansion. Barangay Cambaol has a total population of 1,025 (2000 NSO Population Data) with an average growth rate of 1.61%, which is lower than the provincial growth rate of 2.92%. Its geologic formation is a mix of carmen rock formation (characteristics essentially composed of shale, sandstone, slabby to elastic limestone beds, conglomerate, siltstone. Mudstone and marl and ubay volcanics (the characteristics is heterogenous mass of volcanic flows, agglomerates and intrusives. The soil type of the barangay is dominant on faraoon clay. The dominant slope of the barangay is 5-25%, which is characterized by as gently sloping to gently rolling and strongly sloping which is ideal site for tree and orchard farming and pasture. The barangay is free from flooding hazard but very highly susceptible to potential erosion. For land capability and suitability, Barangay Cambaol belongs to both "Class A" and "Class Y". For Class A, the soil characteristics is very good land, it can be cultivated safely requiring only simple but good farming management. For Class B, the soil characteristics is suitable for recreation and wildlife and for reforestation development.

This strategy is supportive of the Poverty Reduction Program of the municipality and the province as well as a long-term solution in the protection and conservation of the natural resources. This is a priority program of the Municipality of Alicia as stipulated in their local development agenda for 2012. The LGU has a strong commitment as evidence the local government units put up a counterpart in terms of the land area for the proposed plantation, financial and in kind.

The concept of the proposed project is a community-based or family-approached which intends to increase productivity without dislocating the regular farm activities of the farmer beneficiaries. This scheme promotes planting of fast growing trees in initial year to correspond to the immediate needs of the farmers while, at the same time, developing a micro-climate for the introduction and development of premium long-term crops.

In essence, tree farming under this concept supplements all other activities using the family labor of the households into tending open or less developed of their existing integrated social forestry program. The families are given an area to plant timber trees, bamboo and fruit trees and after which the farmer beneficiaries are entitled to gain benefits out of their work. Having been given the right as well as the responsibility not only to utilize but most important to manage our natural resources, the communities have a crucial role and place in the management of the watershed. On the other hand the Local Government Unit of Alicia will provide the site and the farm inputs not readily available from farmers together with technical and administrative assistance,

Considering the plight of farmers and the broader concern of the government, a participatory community-based approach to tree farming is the answer. This partnership will promote economic upliftment, sustainable productivity and environment protection. Specifically it will model a family-focused for a tree farmer enterprise (fast growing trees like acasia, gemelina, mangium, aure) and will demonstrate a viable government-farmer joint venture arrangement with the farmer supplying land, materials, technical and administrative assistance and the later providing labor and after care as equity. Cash crops like corn, pineapple, and banana will be planted in-between during the early years of establishment or

until the canopy of trees close. This will provide farmers some livelihood income while waiting for his/her trees to grow.

In order to alleviate the poverty situation in this barangay, timber trees, fruit trees, bamboo, banana farming and small-scale enterprises are considered as one of the better alternatives for the farmers to increase their income and also provide employment opportunity to the people. It increases forest cover and minimizes soil erosion in the municipality. Water sources both for drinking and for all other uses shall be protected by measures that will maintain safe water yield from its aquifer and sustainability of its water tables.

The project is in response to the province and national government's effort on eradicating extreme poverty in the country in complement to the Millennium Development Goals (MDGs) of the United Nations under goal 7 to ensure environmental sustainability and (targeting the reduction of all forms of poverty by year 2015).

Due to a very limited fund in the Local Government Unit of Alicia to cover all the needs in the municipality especially on project implementation, we therefore seek assistance to funding donors.

### **3. Project Objectives**

- To improve the natural resource (forest) management practices of the barangay residents
- To promote the economic and social well-being thereby uplifting the living condition of the people living inside and outside the catchment.
- To reduce soil erosion, restore biodiversity
- To rehabilitate degraded area in barangay Cambaol
- To contribute the ecological balance in the municipality
- To establish and develop 40 hectares of open and denuded areas in Binabay, Cambaol, Alicia
- To strengthen strong participation, cooperation and collaboration of stakeholders, non-government organizations and private sector in the protection and management of the natural resources.
- To capacitate the farmers and the community on tree resources management and small-scale enterprise development.

### **4. Project Components/Activities**

1. Pre-plantation operation (procurement of seeds/planting materials and seedling production, fertilizers and seedling maintenance)
2. Establishment of Tree Plantation (which includes public consultation, site/land preparation, design, planting and re-planting)
3. Construction of nursery and maintenance of road access
4. Capability building on the management of nursery and tree plantation and small-scale enterprise
5. Maintenance and Protection of Tree Plantation (ring weeding and cultivation, fertilization, fire prevention and control, monitoring of project implementation)

## 5. Input Requirement

1. Technical assistance in land-care (site preparation, design, planting and maintenance)
2. On-site trainings on the management of community-based and family-approach replanting and enterprise development
3. Planting materials and fertilizers
4. Technicians and unskilled laborers
5. Infrastructure input (construction materials for nursery establishment, road surfacing materials and heavy equipments for road maintenance e. g. road grader, road roller, dump trucks, heavy equipment operators, drivers, laborers etc.)
6. Administrative mechanism for the management of tree resources development
7. Labor counterpart from the farmer beneficiaries

## 6. Implementation Schedule

The proposed project will be implemented in one year following the timeline mentioned below.

Major Activity	Implementation Schedule			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1. Infrastructure (nursery and road maintenance)	■	■		
2. Pre-planting Operation (seeds preparation, sowing, maintenance of seedlings, fertilizers, trainings (includes enterprise capability trainings))	■	■		
3. Establishment of Tree Plantation (public consultation, site preparation, design, planting)	■	■	■	
4. Plantation Maintenance, Protection and Management			■	■
5. Monitoring and Evaluation				■

## 7. Expected Outputs

- Rehabilitated the 40 hectares of denuded area in Barangay Cambaol
- Improved access of barangay roads leading to the project
- Operationalized nursery tree plantation
- Established workable and functional community-based monitoring system
- Promoted agro-forestry strategy (inter-cropping technology)
- Increased forest cover in the area
- Established and sustained mechanism for collaboration and counterparting
- Increased the level of awareness raising measures for farmer beneficiaries and local stakeholders and residents

## 8. Project Beneficiaries

## **Beneficiaries**

There are 40 families that would directly benefit from the project. is approximately, Alicia. However, the indirect beneficiaries are 200 families or 1,200 inhabitants living in barangay Cambaol and the general population of Alicia and adjacent municipalities within the watershed.

### **Role of the Beneficiaries:**

The farmer beneficiaries will do all the activities of one hectare for every farmer beneficiary (from seedling preparation, site delineation, planting, thinning, maintenance and protection) of the project. This will serve as the counterpart, which is labor. It is very significant because this is provided by the family and can be higher than the actual input provided by the LGU. To include the opportunity cost of caring the land and tree plantation it will reach to approximately 70% of the total cost of investment.

### **Social Benefits**

The proposed project will bring desirable outcome to the inhabitants of the area and would result to a better way of living. It further provides the general welfare as well as the integrity of the environment, generate employment and income of the farmers and thereby reducing the poverty incidence in the municipality.

### **Economic Benefits**

The project will improve and stir a positive impact in the rural economy of the municipality of Alicia and increase in per capita income of the households as well as the income of the municipal LGU.

### **Economic Costs**

Diversion of income derived from entrepreneurship activities to the purchase of non-essential commodities as well as activities for pleasure and entertainment e.g. fiestas, gambling. This will reduce the savings rate of beneficiaries making them vulnerable against shocks and calamities.

### **Ecological Costs/Implications**

Planting fast-growing but premium trees intensifies the management and maximizes the use of the land. Beneficiaries do not only plant trees for tuition fees. But trees stabilize wood supply that greatly increase biodiversity, assure multi-rotations, provide continuous forest cover, help ameliorate water and air pollution, modify micro-climate, enhance aesthetics and slow down soil erosion.

## **9. Implementation Arrangement**

### **Responsible Agencies**

- |    |                     |   |  |
|----|---------------------|---|--|
| 1. | Implementing Agency | - | LGU of Alicia<br>Barangay Cambaol thru Tree Farmers Ass.           |
| 2. | Cooperating Agency  | - | DENR, and CENRO Talibon<br>Bohol Environment and Management Office |

Provincial Planning and Development Office  
Office of the Provincial Agriculture  
Provincial Engineers Office

3. Private Sector - Non-Government Organizations

### **Role of Participating Agencies:**

#### **Municipality of Alicia**

The Local Government Unit will provide the inputs for planting materials, the land/site which is publicly owned by the municipality, counterpart resources in monetary and or in-kind and the technical and administrative assistance, ensure that budgetary requirements for the road maintenance is properly allocated. The LGU together with the beneficiaries and other participating agencies will prepare the relevant binding instruments e.g. MOA and the criteria for the site selection as basis for the management of the project.

#### **Barangay Cambaol**

The barangay Cambaol is responsible in the overall implementation and monitoring of the project. Provide counterpart funds from their IRA in the maintenance of barangay road leading to the project Seedlings will be raised by the government nurseries or may be acquired from other entities like BEMO, DENR, OPA and even NGOs.

#### **Cooperating Agencies**

Technical and farm inputs like seedlings shall be provided by the collaborating agencies depending on their level of expertise, capacities and mandates.

**Fund Source** : NEDA - PEP (Japan Grant )

The funding donor will provide funds to support in the implementation of the proposed replanting and planting project activities in the areas designated in open and denuded lands in barangay Cambaol.

The project will be funded based on the schedule of activities for implementation. Since the total project costs are all estimates, all of them are still subject to revision after the detailed project study and design will be conducted.

#### **Counterpart Funding**

The municipal government will provide the funds in cash or in-kind to support on the establishment of nursery and other infrastructure facilities needed in the mobilization and implementation of the project and the land where the construction of nursery is located.

#### **Administrative and Accountability**

The LGU of Alicia is accountable and will set a project management mechanism in the implementation of the project in coordination with the Office of the Municipal Agriculture, Office of the Municipal Assessors and other line agencies concerned and the private sector. The existing Tree Farmers Association in the barangay is responsible in the operation and maintenance of the project. Project Management Structure shall be defined properly before commencing the project implementation.

## **Economic Analysis**

Benefits are shared equitably based on the level of efforts and resources put into the project. For this kind of project the Municipality of Alicia, Barangay Cambaol and the farmer beneficiaries agrees on the sharing scheme of 70/30 in favor of the farmers. It is, however emphasized that the LGU should actively participate in the marketing of the products or create an opportunity to fully capture the real value on tree investments. Based on the study, the net present value of income from one hectare gmelina plantation is Php 112,509 and Php 58,045 at 15% and 20% interest rates, respectively. For every peso of investment, of gmelina plantation can gain 1.29 and 0.92 at 15% and 20% interest rates. Thinning or pruning of trees could be converted into cash. The final harvest at an optimal rotation will yield the highest return approximately amounting to Php 1,000,000.00/hectare.

## **Legal and Political Feasibility**

The Project is consistent with the national and local laws and enjoys the political support of the local government unit in the area where it is proposed to be implemented as evidenced by their counterpart funding for the project.

## **Environmental Compliance**

Actual site designation, delineation and evaluation must be secured by the proponent before its actual execution of the project. Processing of the needed documents is assured to be facilitated and should not be an obstacle for the implementation of the proposed project.

## **Social Acceptability**

The Municipal Local Government Unit of Alicia is concerned about this proposal and will give full support and assurance to cooperate in their respective areas of responsibility. It is clear that the process of participatory planning will be adopted to ensure the wide participation of the cooperating agencies, NGOs, private sector and the stakeholders as a whole.

## **Project Sustainability**

The project will facilitate in the development of a clear and realistic sustainability plan in maintaining the viability of the multi-sectoral body participation. A series of consultation workshops will be done to define the financial and physical requirements in the operation of the monitoring mechanism and identifying strategies on how to sustain the community interest and support, legal mandates, availability of appropriate technologies and credibility.

The issue of sustainability will be the main responsibility of the local players and stakeholders, they will cross examine the possibilities of equipping the multi-sectoral body with a legal basis as provided under RA 7160 or the Local Government Code of 1991. Other sustainability schemes that the multi-sectoral body can assess are the regular support from various sectors in development like business, development institutions, People's Organizations and NGOS.

Support services such as technical, administrative, materials and monitoring and evaluation mechanism are very necessary for the success and sustainability of the project.

## Project Monitoring and Evaluation

Monitoring and evaluation is essential in order to ensure a periodic review and assessment of the progress, outcomes and impact of the project in the community. A monitoring mechanism and plan shall be established and formulated and it should be supported by legal instrument and resources in order to perform and execute fully the activities formulated in the plan. The municipal government of Alicia thru the Municipal Planning and Development Coordinator has the biggest role in implementing the monitoring and evaluation procedures as mandated under RA 7160 otherwise known as the Local Government Code of 1991 through Executive Orders No. 376 and 93 to establish and operationalize the Project Monitoring Committees in each province and municipalities.

### 10. Estimated Budgetary Requirements

Project Component	Estimated Project Cost (Pesos)
1. Infrastructure (nursery and road maintenance)	100,000
2. Pre-Plantation (Nursery Operation, trainings and enterprise development)	400,000
3. Plantation Establishment (includes public consultation, site preparation, design, planting)	200,000
4. Plantation Maintenance and Operation	280,000
5. Monitoring and Evaluation	20,000
<b>T o t a l</b>	<b>1,000,000</b>

The Local Government Unit of Alicia will provide counterpart funds amounting to Php 100,000 (from the 20% IRA -2007), unskilled laborers to maintain the nursery and the land for the establishment of nursery and tree plantation and allocate yearly budget in the maintenance of barangay road leading to the project. The LGU will also help sourced out additional planting materials if needed by the project. The barangay Cambaol will also provide regular budget in the maintenance of barangay road and level II water supply. The Tree Farmers Association will see to it that the inputs like organic fertilizers will be equipped and ready all the time for use in the maintenance of the tree plantation.

### 11. Project Logical Framework

Narrative Summary	Objectively Verifiable Indicators (OVIs)	Means of Verification (MOVs)	Assumption
<b>Goal:</b> Improved quality of life while rehabilitating and conserving the forest resources in the community	Improved quality of life 200 families in the barangay  40 hectares rehabilitated and conserved	LPRAP Database  LGU annual report	Municipal officials will support the project.  Design is suitable to project area.
<b>Purpose:</b>	90% of the trees planted survived	Monthly monitoring	Willingness and commitment of the

To increase vegetative cover and enhance the economic and social well-being of the communities	50% of the farmer families engaged in income generating projects	report LPRAP report of LGU	project. Farmer beneficiaries are receptive of the project idea.
<b>Output 1:</b> Nursery established and functional	1-nursery house operational	Design and estimates	No revision of design and price escalation
<b>Activities:</b> 1.1 Preparation of lot/site  1.2 Purchase/delivery of construction materials  1.3 Construction of nursery shed house  1.4 Conduct of trainings and enterprise development	MOA signed and approved, site delineated Materials for the nursery delivered  1-unit constructed  4-trainings conducted	Certificate of stewardship  Bill of estimates  Work and financial plan  Training modules	Beneficiaries and LGU agreed  No price escalation  Design and specification followed training design followed
<b>Output 2:</b> Barangay road maintained and improved	7 kms of road gravelled	Barangay LGU report	Good weather condition
<b>Activities:</b> 2.1 Delivery of gravel materials for resurfacing  2.2 Spreading of gravel materials  2.3 Road compaction	200 cubic meters delivered at sit  7 kms of barangay roads  7 kms. road compacted	Delivery receipt  Team monitoring report - do -	Good condition of equipment  - do -  - do -
<b>Output 3:</b> Tree plantation established and made operational and properly maintained	40 hectares planted with timber trees and fruit trees	Barangay LGU report	Good weather condition and Farmers willing to plant seedlings
<b>Activities:</b> 1.5 Site preparation, design, planting and re-planting  1.6 Procurement of seeds, planting materials, seedling production, fertilizers)  3.3 Maintenance and Operation of Tree Plantation (ring weeding, cultivation, fertilization, fire prevention & control)	40 hectares prepared and established  30,000 seedlings produced and planted  200 bags of organic fertilizers procured and distributed to the plantation fire control established	Barangay report  Barangay report  Monitoring report	Mun, barangay officials and farmers agreed  Favorable weather condition  Farmers willing to maintain the tree plantation

<b>Output 4:</b> Improved capacity of the technician and farmers in the management and implementation of the project	New skills and technology adopted	Attendance, Minutes and proceedings	Farmers willing to attend the trainings
<b>Activities:</b> 4.1 Conduct of trainings on the management of nursery tree plantation  4.2 Training on small-scale business enterprise (bamboo handicraft making)	75 farmers trained and enhanced their skills  50 farmers enhanced skills	Attendance, minutes and proceedings  Attendance, minutes and proceedings	Trained farmers willing to undergo new technology  Trained farmers willing to undergo and impart new skills and technology
<b>Output 5:</b> Community-based multi-sectoral monitoring team established and made functional	Monitoring conducted regularly at the barangay where the project is located	Accomplished report format on monitoring & exception report	Trained monitoring team willing to implement the system
<b>Activities:</b> 5.1 Organize barangay monitoring team for the conduct of regular updates on the status of the project implementation  5.2 Preparation of monitoring tools and action plan in the conduct of the activity  5.3 Regular conduct of on-site monitoring activities at the project site  5.4 Reporting and feedbacking	1- team created and functional  executive order signed by mayor  monitoring tool formulated and action plan approved  number of monitoring activities conducted  number of reports submitted	Minutes of MDC/BDC meetings  Accomplished report format for monitoring  Monitoring team report by barangay  - do -	LGU will continue to provide funds as committed  Team accept and maximize the use of the tools for monitoring  Team willing and committed to perform monitoring without additional fee  Able to communicate information to local chief executives, donors and other partners

## 12. Work and Financial Plan

Component/ Description	Activities	Output	Project Cost		
			NEDA-PEP	LGU	Total
1. Construction of	Preparation of design				

nursery house	and estimates Purchases of building materials Building construction	1-nursery house constructed	40,000	10,000	50,000
2. Barangay road maintenance	Spreading of gravel materials	7 kms of road maintained	10,000	40,000 + fuel/equip	50,000
3. Capability building	Conduct of forest management training and small-scale business enterprise	2-trainings conducted	50,000	supplies	50,000
4. Nursery operation and management	Procurement of seeds, seedling production and planting materials	30,000 seedlings planted	320,000	30,000 + field technician	350,000
5. Tree plantation establishment	Site preparation, design, planting and re-planting	40 hectares planted with assorted species	200,000	Site for plantation	200,000
6. Conduct of Public consultation	Awareness of the project and acceptability	stakeholders		20,000.00	20,000
7. Tree Plantation maintenance and operation	Ring weeding, cultivation, fertilization, fire prevention and control	30,000 trees maintained	280,000	On-site Laborers and farmers	
8. Monitoring and evaluation of project	Creation of multi-sectoral monitoring body Conduct of regular monitoring Reporting and assessment	1- team functional  9 times  9 reports submitted		20,000	
<b>T o t a l</b>			<b>900,000</b>	<b>120,000</b>	<b>1,020,000</b>

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