

NAME OF SUB-PROJECT	:	REHABILITATION OF ALEGRIA – BUGHO FARM TO MARKET ROAD
LOCATION	:	ALEGRIA, CABADIANGAN, CANDASAG AND BUGHO
IMPLEMENTING LGU	:	PROVINCIAL GOVT. OF BOHOL
ESTIMATED NO. OF BENEFICIARIES	:	POPULATON: 1,475 (Male: 761 & Female: 714) HOUSEHOLDS: 295
PROJECT CATEGORY	:	REHABILITATION OF EXISTING ROAD
ESTIMATED TOTAL COST	:	P 51,542,000.00

d. Social Analysis

- i. **Project Beneficiaries.** The beneficiaries of the subproject are the 1,475 residents of the four barangays in the influenced area. Breakdown by barangay of project beneficiaries is shown in Table 1. The people in the influence area are mostly farmers. Coconut and rice are the major crops that they cultivate. Most of the residents depends their income in agriculture. Initially, the four covered communities have conducted a joint Barangay Council meeting last July 14, 2014 to discuss the proposed project among the council members and come up with a decision of support. The people were informed of the project through a barangay assembly meeting conducted last September 22, 2104 in Brgy. Cabadiangan. The project was accepted by the people through a resolution of the Barangay Council endorsing the project to the Sangguniang Bayan for approval of the Concreting Project of Farm to Market Road under the Philippine Rural Development Project.

Table 1. Project beneficiaries in the subproject site in Loboc, Bohol

Barangay	Project Beneficiaries			Household Size
	Male	Female	Total	
Alegria	276	273	549	5
Cabadiangan	124	109	233	5
Candasag	101	98	199	5
Bugho	260	234	494	5
Total	761	714	1,475	5

Source: Poverty Data Base Monitoring System, LGU Loboc

Also, during the public consultation, the people were encouraged to raise their issues and concerns and suggestions relevant to the project. They were informed that they are entitled to claim for payment of any structures, crops, trees and coconuts and any other crops which may be affected by the project. However, the MLGU explained to them that since payments of this affected structures, trees and crops are not included in the budget of the project, but rather it will come from the LGU, they requested that no payment shall be made. Instead, the LGU will shoulder the cost for the application of cutting tree permits for the trees that will be affected and the lumber will be given to the owners. The LGU further

elaborated that the residents within the project area will benefit from the project through increased economic activities, reduction of travel time and ultimately will improve the beneficiaries' quality of life. All the people who attended the consultation understand and they are very supportive of the project. The barangay leaders expressed their sincerest thanks to the World Bank, National Government, Provincial Government and the MLGU and to all concerned for the realization of this project.

A total of 18 women also attended the consultation. The major issue and concern raised was on their Livelihood Project. In response to these, the LGU team conveyed that once this project is realized, their livelihood opportunities will increase.

- ii. **Indigenous Cultural Community/Indigenous Peoples (ICC/IP).** There is no officially declared ancestral domain in Bohol, however, there are two identified Indigenous Cultural Community/Indigenous Peoples (ICC/IPs); Escaya which is located in the municipalities of Duero and Candijay and Badjao located in the coastal area of the municipality of Daus. The proposed Farm-to-Market Road subproject is about 60 kilometers from Candijay and about 30 kilometers from Daus. A Certificate of Non-Overlap (attached) was secured for this purpose.
- iii. **Site and Right-of-Way acquisition.** The existing farm-to-market road traversed four barangays mentioned earlier. The subproject site is an agricultural area with secondary forest trees with different species growing along the stretch of the road. Most of the crops in the area are coconuts, bananas, corn and other root crops. The proposed road subproject is an existing barangay road with an established ROW of 10 meters width based on the cadastral survey no. 357-D. However, some portions of the road were not covered by the said cadastre and remain less than 10 meters wide comprising of 16 land parcels with an area of 12,729 square meters. The sixteen (16) persons affected by the proposed subproject are the owners of the lots traversed by the proposed road but not covered by the cadastral survey. Of these, four (4) households are in Brgy. Alegria, six (6) in Brgy. Cabadiangan, two (2) in Brgy. Candasag and four (4) in Brgy. Bugho (Please see Annex G – Form 1). These portions were subjected to land acquisition for ROW to satisfy the required width based on the technical design. As such, the owners of said parcels listed in Table 2 are the project affected persons (PAPs).The site or right of way was acquired by way of donation (Please see attached Deed of Donation).

Table 2. Project affected persons and area for right-of-way acquisition

Name	Total landholdings (m ²)	Land to be acquired (m ²)	Remarks (Donated/Waived)
Brgy. Alegria	67,556	1,527	
1. Jernigal Cempron	5,965	527	Donated
2. Andres Baquial	7,122	-	Donated
3. Fructuso Andoy	46,651	650	Donated

4. Patricio Colina	696	350	Donated
5. Isidro Baquial	7,122		Waived
Brgy. Cabadiangan	161,709	7,300	
6. Leonila Delfin	4,706	900	Donated
7. Regina Palaran	17,197	2,000	Waiver
8. Tomasa Marfe	12,691	1,200	Donated
9. Sabina Balito	18,931	500	Donated
10. Vicente Calavite	3,098	500	Donated
11. Felix Idao	43,069	1,700	Donated
12. Marcial Tumanda	11,464		Waived
13. Maria Silba Balito	18,931	500	Donated
14. Teofila Vicente	18,931		Waived
15. Galo Saludo	12,691		Waived
Brgy. Candasag	52,849	1,700	
16. Samuela Fuertes	31,369	800	Donated
17. Lorenza Fuertes	21,480	900	Donated
Brgy. Bugho	52,815	2,202	
18. Fernando Balbin	8,765	702	Donated
19. Evelyn Femes			
20. Felagia Barrete	12,760	1,100	Donated
21. Fernando Balbin	6,724	400	Donated
22. Potenciano Dugang	8,736		Waiver
23. Vivencia Pajar	15,830		Waiver
Total	334,929	12,729	

- iv. **Damage to standing crops, houses and/or other properties.** The proposed road subproject will not cause any damage to agricultural crops except for 41 coconuts and 93 planted trees, mainly gmelina and mahogany that need to be cut. The inventory of these trees are attached together with the request for cutting permits for both coconuts trees and planted trees from the Provincial Office of Philippine Coconut Authority and Community of Environment and Natural Resources, respectively. Copies of the permits issued by the abovementioned offices are herein attached.

There are also few properties likely to be affected during the road widening works which include two houses made of light materials, septic tank, BOHECO electric post, and basketball court. The agreement reached on the affected structures is that no compensation will be given to the affected families. In the case of the affected houses, the Brgy. Captain committed to help in the relocation of their houses. In the case of the septic tank, the owner voluntarily agree to relocate it to another site. The electric post of BOHECO I will be relocated through the request of the Provincial Local Govt. Unit (PLGU) while the Basketball Court of Brgy. Cabadiangan will be transferred to another site according to the Brgy. Captain with the consultation of the barangay officials and basketball court users. This was verified last Feb. 23, 2015 and the agreement is that the LGU will shoulder the expenses in the relocation and construction of the 2 houses with counterpart of the PAP's and the barangay. In addition to the 16 affected persons, there are

considered 7 affected persons due to damages to crops, houses and other structures.

Table 3. Project affected persons due to damages to houses, crops, and other structures. (Please see annex G-Form 2)

Name	Trees		Other Structures
	Coconuts	Planted Trees	
Brgy. Alegria			
1. Jernigal Cempron	3	1	
2. Andres Baquial	-	-	
3. Fructuso Andoy	11	10	
4. Patricio Colina		2	
5. Isidro Baquial	1	10	
Brgy. Cabadiangan			
6. Leonila Delfin	3	6	
7. Regina Palaran	6	8	
8. Tomasa Marfe	4	1	
9. Sabina Balito		2	
10. Vicente Calavite	2		
11. Felix Idao			
12. Marcial Tumanda	-	-	
13. Maria Silba Balito			
14. Teofila Vicente	-	-	
15. Galo Saludo	-	-	Septic Tank
Brgy. Candasag			
16. Samuela Fuertes	7	10	
17. Lorenza Fuertes	1	4	
Brgy. Bugho			
18. Fernando Balbin	-	5	
19. Evelyn Femes			
20. Felagria Barrete	2	21	
21. Fernando Balbin	1	13	
22. Potenciano Dugang	-	-	
23. Vivencia Pajar			Fence
Total	41	93	

- v. **Physical displacement of persons.** The relocation of the two houses will be done by the Barangay thru the Shelter Assistance program. The family of Maria Silba Balito and Teofila Vicente are the two houses probably to be relocated.
- vi. **Economic displacement of persons.** The proposed subproject will not affect the economic activity of the locality. On the contrary, it will bring more livelihood opportunities of the residents in the four barangays.
- vii. Grievance Redress Mechanism (GRM)

In anticipation of increasing issues and concerns about the subproject in the future particularly dealing with complaints/appeals/problems/queries that may

arise from concerned clients/beneficiaries, the GRM will be established to respond to this matter. The structure of the GRM is shown in Figure 1.

At the municipal level, a committee will be established composed of the Local Chief Executive as the chairman and its members are the Four (4) Barangay Captains of the influence area, the Municipal Engineer, Municipal Assessor, Municipal Agriculturist, Municipal Planning and Development Coordinator and the President of the Association of Barangay Captains. This committee will see to it that all complaints which will be received be given immediate action and resolution to have a smooth implementation of the project. The Grievance Redress Committee will convene at once if any of the project affected persons (PAPS) files a complaint in order to settle any concerns that will arise during project implementation.

Information about the GRM shall be disseminated at the barangay, municipal and provincial level through brochures, posters, streamers, etc. A clear procedure on how the people can pursue their complaints, appeal and queries shall be posted in strategic areas including contact information and designated persons who will accept the complaints/appeals/queries. All complaints/appeals/queries will be accepted, resolution documented, appropriately responded to, and files will be properly compiled/kept for future reference.

Unresolved complaints and appeals at the village/barangay level shall be elevated to the higher levels (MLGU and PLGU) for proper resolution. Whenever complaints and appeals at the local levels remain unresolved, they will be submitted to the concerned GRM at the regional, visayas cluster national level (Regional Project Coordination Office, Project Support Office, and National Project Coordination Office) of the Philippine Rural Development Project in accordance with their established policy and procedures on GRM.

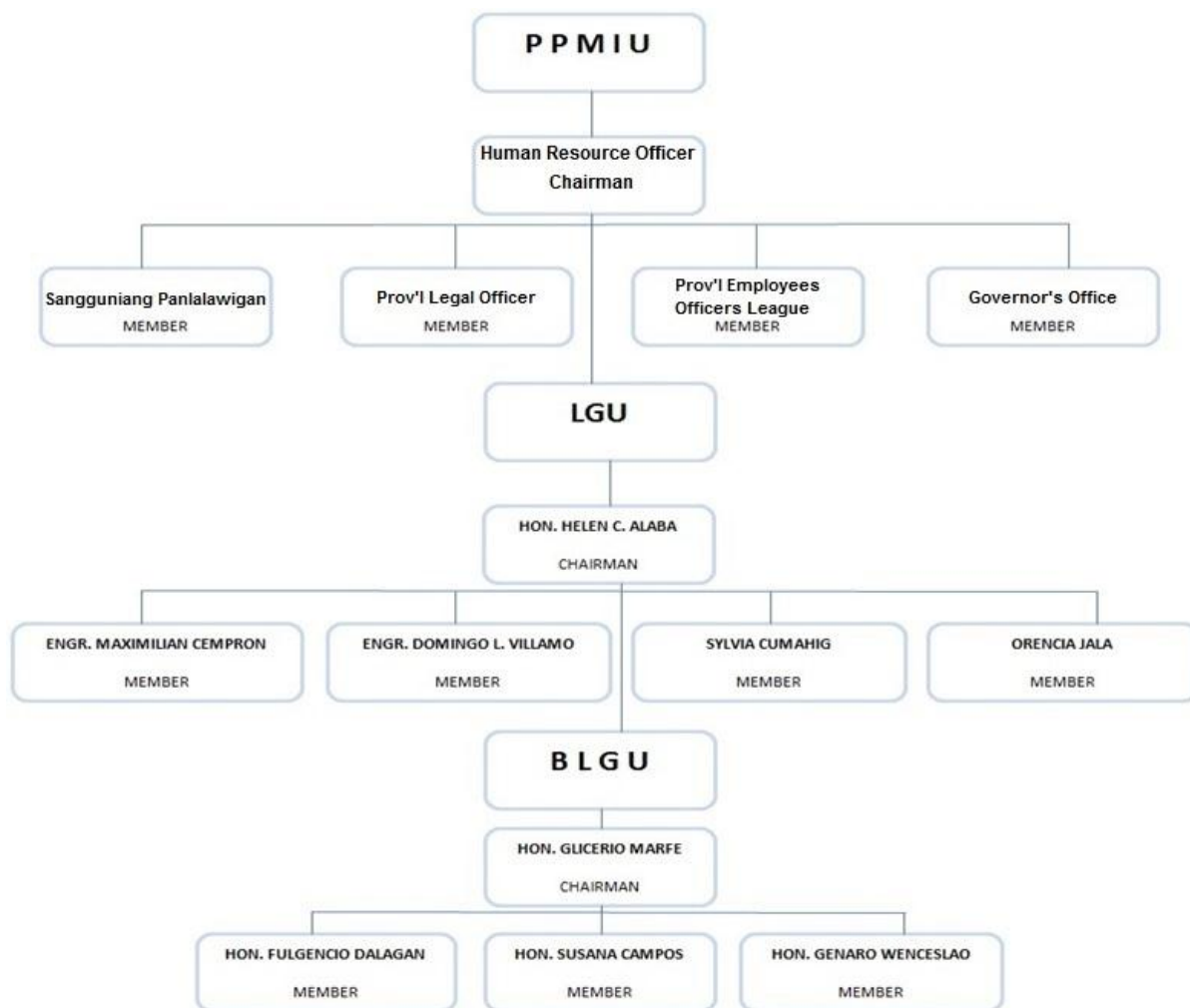


Figure 1. The grievance and redress mechanism structure for PRDP subprojects

e. Environmental Analysis

- i. **Natural habitat.** The proposed subproject site is not located in any declared protected area. Except for the abovementioned trees, there is no wildlife, water eco-system or other endangered species that will be affected.

The subproject site has intermittent secondary forest trees of different species growing within its influence area. Commonly grown agricultural crops are coconuts, bananas, corn and other root crops. Expansion of agricultural production will be restricted or regulated in the influence area to protect the secondary forest trees.

- ii. **Physical Cultural Resources.** The proposed project will not affect any physical cultural resources within the influence area. But, in the event that archeological/paleontological discoveries/pieces will be unearthed, excavation shall be temporarily stopped to inform the appropriate authority/ies and prescribed procedures as stipulated in Annex H-2 of the Integrated Environmental and Social Safeguards Framework of PRDP shall be followed. The procedure will be disseminated to all involved in the implementation and copy of which will be made available in the project site at all times. Furthermore, to make the

contractor and all concerned aware of this procedure, this procedure will be discussed with them in an appropriate venue and a copy of which will be provided to concerned project implementers.

- iii. **Terrain, Soil Types and Rainfall.** The proposed project site is hilly to moderately steep terrain with a type of soil called Faraon and Sevilla Clay which is not vulnerable to soil erosion or landslides. The road will traverse in a mountainous area and appropriate slope protection will be applied to prevent soil erosion and landslides.

The proposed subproject has an average annual rainfall of 18 mm per year with the lowest monthly precipitation of 14 mm in the month of March and the highest monthly precipitation of 23 mm during the month of November based on the 2013 data of the Office of the Municipal Agriculturist.

- iv. **Hazard/risk assessment (Drainage Situations, Erosion, Flooding Potential).** The drainage situation in the proposed project site will not be impacted by the proposed subproject. Since the site is hilly and mountainous, drainage system for runoff water is not a problem and so is flooding. Some portion of the subproject site is prone to landslide and erosion and appropriate slope protection will be applied.

- v. **v. Integrated Pest Management (IPM)**

The Municipal Agriculture Office in coordination with the Department of Agriculture Regional Field Office 7 has conducted Farmer's Field School on IPM/KASALIKASAN. During the Farmer's Field School, the farmers were effectively involved in fieldworks over the entire crop production for them to be more engaged in IPM and develop their capabilities to discover and honed their acquired scientific cultural management skills effectively. This participatory, experiential and discovery-based learning approach is highly successful in sustaining FFS farmers to continue to adopt IPM principles and become partner advocates for a healthy rice, corn, and vegetable production. The program had a significant shift in agricultural extension exhibiting farming practices with reduced use of insecticides, increased non-users of insecticide, and reduced frequency of insecticide application. Department Agriculture has continued to instigate partner LGUs to mobilize local resource and support IPM approach for the sustainability of the program.

The farmers in the influence area practiced Integrated Pest Management (IPM) in corn and vegetables production. The use of IPM serves as a way where farmers can save money as compared to their previous practice of using chemicals intensively to control pest and diseases. Now that they implement the Integrated Pest Management and Good Agricultural Practices to grow healthy crops and minimize use of pesticides, the farmers are able to save money because they use chemicals only when the injury of particular pest and disease to crop reach above the acceptable maximum tolerable level.

At present, adoption of IPM among the corn and vegetable farmers reached at 50%. To further increase adoption to such technology, the Integrated Pest

Management Program shall be incorporated in refresher training/seminar or technology updates for the farmers in the influence area of the subproject.

vi. **Status of environmental clearances –CNC/ECC**

The proponent LGU requested from DENR an Environmental Compliance Certificate (ECC) for the proposed subproject. Since the subproject involves rehabilitation of barangay road, the DENR instead issued a Certificate of Non-Coverage (CNC). The Certificate of Non-Coverage with reference number CNC-RO7-1410-0034 dated October 22, 2014 is hereby attached. Request for cutting permits for the planted trees (mahogany, gmelina) and coconuts were already submitted.

vii. **Quarry Source**

The quarry source recommended by the LGU is the PTE Construction located at Baclayon, Bohol. This is an approved quarry source by the DPWH and PTE Construction has also a permit issued by the Provincial Government. The quarry site is well maintained and most likely it will not bring a negative impact of the environment. PTE construction will take responsibility for the maintenance of the access road if in case it will be damaged during hauling operation.

viii. **Disposal of Surplus Excavation**

For the disposal of surplus excavation, a certification that surplus excavation will be properly disposed off in the LGU-owned lot in Brgy. Camayaan, Loboc is herein attached.

ix. **Social and Environmental Impacts**

a. Impacts During Construction

The proposed project requires step-by-step activities, which will likely bring an impact to the locality and its adjoining area.

Step 1. Clearing and Grubbing. This is all about preparing and clearing the area of obstruction/vegetation specifically both sides of the road. The proposed project site has sparse tree vegetation and the project will be affecting very few planted trees, mostly Gemelina and Mahogany found along the road.

Step 2. Excavation. It is done by way of excavating the soil of the proposed farm-to-market road to level the area of the proposed road pavement.

Step 3. Embankment. Seventy five (75%) of the excavated material shall be used to fill the lowest level of the area to a desired height, while 25 % shall be used along the proposed box culvert.

Step 3. Sub grade preparation. This is grading of the proposed road.

Step 4. Aggregate base course. This is a sub-surface preparation and requires the placement of sand and gravel requirements. The base course material will have 0.20 m thick on the carriage way and 0.4 m on both shoulders.

Step 5. Concreting. This is about Portland Cement Concreting Pavement. This will entail the mixing of sand, gravel and the Portland cement.

- a. The air pollution that may cause by this activity may directly affect the workers only and the residents residing beside the proposed road.
- b. There is hardly noise pollution as the project is far from the communities. But to prevent noise pollution, activities are to be undertaken during daytime.
- c. Waste Pollution coming from waste motor oil shall be discharge carefully. Maintenance of equipment must be done before the start of the project activities.
- d. Riprapping shall be done in steep areas to prevent landslide/erosion.
- e. Part of the road maintenance is the establishment of road canal linings on both sides especially on steep grades where scouring is evident.

Step 6. Drainage canal. To maintain the good condition of the road, drainage canals will be established on both sides. But in area where there is a side cut, one side canal lining shall be constructed.

b. Environmental Impacts and recommendations:

Wildlife Habitat. There is no impact on forest habitats as the proposed project will be implemented in an area far from wildlife habitats. There will be no wildlife displacements and no cutting of endangered tree species. Planted trees which will be cut along the road must be replaced by the proponent by planting endemic tree species along the designated area.

Water Contamination. The soil type of the area of the proposed project is classified as karst and has great potential for soil erosion or landslide during heavy rainfall. This may bring sedimentation to the existing water systems. Another possible source of sedimentation is the excavated soil which can be carried by rain to the creeks and canals. These can affect the existing freshwater species and its habitats.

To prevent sedimentation, the proponent must designate an area for excavated waste at least 5 meters from the roadside and far from creeks. This must be in low lying areas so as to prevent its direct flow to water sources. Areas with steep gradient must be rip-rapped or planted with natural vegetation known as natural matting to prevent soil erosion and landslide. Canal linings will also be established to provide an area for water flow or flow diversion. It can also serve as part of the road maintenance and will ensure that sediments will not directly flow to the river systems. Filter barriers or

settling basins for sediments removal must also be established in strategic areas of the project undertaking.

Waste discharge mostly in the form of motor oil must be prevented as this can contaminate water sources. Heavy equipment is likely to contribute this kind of waste hence the proponent shall ensure that equipment maintenance must be done away from the area especially when the equipment needs to change oil.

As the project duration last for a year, fecal waste is likely to be generated from those people involved in the construction. It must be imperative that water contamination caused by fecal waste must be prevented. Establishment of temporary “comfort room” must be established far from water sources, most especially sources of drinking water.

Air Pollution. The proposed project is an existing farm to market road. Proper precautions must be adopted to minimize air pollution during project implementation. Pollution effects must be considered carefully to protect those that will be exposed to the project. Naturally, the pollution that will be generated during excavation and during the mixing of concreting materials will directly affect the people involved in the construction activities. Those involved must be provided by the proponent with helmets, mask and other protective gear known as Protected Paraphernalia’s Equipment. (Note: During construction, watering is recommended to prevent dust)

Noise Pollution. The project will be using heavy equipment that may generate noise. It is recommended that the activities must be conducted during daytime so as not to disturb the sleeping hours of the communities and those involved in the construction.

Disruption of traffic flow. A parking area must be designated by the proponent. This will ensure that traffic flow will be smooth during the duration of the project. (Describe the process during construction such as: traffic flow, temporary detour, sign board)

Sign boards/Billboards. To inform the communities about the on- going project and provide guidance/ safety to those residing within the vicinity of the proposed project, billboards shall be placed in strategic locations. (A sign board must be placed at the beginning and end points of the road.). For public safety, permanent road signs will be installed in appropriate areas such as accident prone areas, public offices and other institutions, and the like.

Solid waste management. The project will not only generate air, water and noise pollution, but is also expected to generate solid waste. Among these solid wastes are plastic containers of motor oil, empty sacks of cement and other waste by people involved in construction activities. To prevent litter and secure garbage, trash and solid waste during the construction phase, a Material Recovery Facility must be established as part of the solid waste management by the proponent.

The training on waste management must be provided by the proponent to the communities and to the project implementers. This will ensure that both the project implementers and the communities understand the possible environmental and health impacts of the project and thus endeavor to minimize if not prevent any negative impact.

c. Requirements of Permits

Certificate of Non Coverage CNC. The application of the Local Government unit for Certificate of Non Coverage CNC of the proposed project was approved by DENR-EMB, as per certification issued on October 22, 2014.

Governor's Permit. The winning contractor must secure Governor's Permit for sand and gravel as part of the construction materials.

Tree Cutting Permit. The Local Government Unit of Loboc is now processing the application for cutting permit of affected trees and coconuts at CENRO, and PCA Tagbilaran City to ensure that only those planted trees shall be cut.

Chainsaw Permit. As there will be trees to be cut, the chainsaw that will be used must have a permit from CENRO, Tagbilaran City in compliance with the Chainsaw Act.