

5.5.3. Formulation of O & M Policies and Ordinances

The BROM Teams will formulate the O & M policies that shall be adopted by the Barangay council through the barangay ordinance. The MPMIU will assist the BROM Teams in the formulation of policies the utilization policy, maintenance policy and others.

D. Social Assessment

D.1 Social Assessment Aspects

The sub-project beneficiaries are the 6,296 population of the three barangays of Sangay, Mahayahay and Crossing with a total households of 1,260 . Male population is accounted to 3419 and female of 3172. More than majority belong to the marginal farmers that have only an income that ranges from Php. 30,000.00 to Php. 40,000.00 per annum or to an average of Php. 35,000.00 per annum. The beneficiaries were already consulted through an assemblies conducted last June 6-8, 2013 at the three barangays. The conduct of barangay assemblies was called in a joint effort with the KALAHI-CIDSS personnel to identify their infrastructure priority project. During the assemblies it was unanimously indorsed by the three barangays the construction/Concreting of Sangay-Mahayahay Farm to Market Road. They proposed the said FMR to traverse to the agricultural lands, to existing Bermudez Elementary School, to the Sitio waterfall farmlands and will connect to the Mahayahay Provincial Road near the vicinity of the new Municipal Hall.

The assemblies were mostly attended by women. They recommended the project to the following reasons, their school children have an easy and safe access in going to school, they have their direct route to the main health center in barangay Crossing where health birthing clinics, consultation and examination services are available, and agriculture , social welfare and others services are also available .(see minutes and attendance sheet attached)

D.2 Indigenous Cultural Community/Indigenous Peoples (ICC/IP)

The project does not traverse to any IP communities owned land, structures and ancestral domain. They are aware and consulted and their tribal leader, Datu Embat Dayong, made and signed certification that attest that the project do not affect the properties owned by the IPs and this proposed project will also benefit them. (see attached IP chieftain statement of support)

D.3 Site and Right of Way Acquisition

The Road Right of Way Acquisition Team is responsible for the negotiation of the land owners to donate portion of their lot for the ROW. The team negotiated the seven (7) land owners with a total area of 3,252 square meters. The seven land owners have already executed their Deed of Donations. (See Deed of Donation Attached). On the other hands, there are four land owners who do not donate portion of their lot for the project with a total area of 1,960 square meters. These four land owners are willing and agree that portion of their lot to be affected will be paid by the municipality before the start of the project. The ROW Team facilitate the necessary documents like the Entitlement Survey of project affected/Displaced person and the Inventory and Entitlement of Project Affected

Persons. The 7,268 square meters are subject area to the existing road and need not to be provided by any document. The project will incur 12,480 square meters road right of way of which 3,252 square meters are donated by seven land owners, 1,960 square meters are to be purchased by the municipality from four land owners and 7,268 square meters are existing road.

D.4 Damage to Standing Crops, Houses/Properties

The proposed project is estimated to damage only fifty one (51 hill) hills of trees , 22 coconut trees and 29 fruit trees on the non bearing stage. No other crops, structures and other developments are being affected and those expected crops damage be paid based on the market price imposed by the local assessment value. (see inventory forms attached)

D.5 Physical Displacement of Persons

The subject proposed facility does not incur displacement to any persons and no adverse lost of livelihood. Generally, the road will traverse to the property line boundaries between two lot owners. All the effected owners agreed the compensation/payment for whatever actual damages to crops.

D.6 Economic Displacement of Person

The project does not incur physical displacement even to single individual nor affect much economic lost. The right of way are mostly traverse to the boundary lines between two land owners. No residential house affected no private and public structures and only 51 hills different species of trees are known to be affected and will be paid by the LGU based on the present valuation imposed in the locality.

E. Environmental Management Plan for the Proposed Road Sub-Project

The implementation of the project is the responsibility of the Local Chief Executive (LCE) through MPMIU head in coordination with the Barangay Councils and the contractor that will assume responsibilities for the possible environmental setbacks.

E.1 Natural, Physical and Cultural Resources

The proposed sub-project will only traverse the agricultural land areas having no known natural habitat of endangered flora and fauna and no critical ecosystem at the area. Sub-project never traverse space and structures having historical significance nor space having natural and special landscape.

E.2 Terrain Soil Types and Rainfall

Generally, the sub-project area are plain, soil types are Bolinao silt and clay loam. Rainfall pattern denote the second type of Climate with no pronounce dry and wet season. Usually dry season on the month of March to June and wet season on November to February.

E.3 Drainage Situations and Flooding Potentials

The project does not cross any major drainage like rivers. Only irrigation canal are to be crossed and dead creek which could be addressed by the provision of Reinforce Concrete Pipe Culvert (RCPC) and spillway. The area is not potential enough by flood since the two rivers (Mamcas River and Lambog River) is still capable to accommodate the runoff water and drain directly to Lake Mainit .

E.4 Impact During Construction

The implementation of the project never introduce much impact to the environment. The most common as predicted is the crossing of equipments at the National Highway that may cause traffic . But with the proper signages traffic flow and hazards are to be minimized. Among other things to be considered include the erosion and sediment control, noise and waste management and construction workers health and safety. Th implementation will employ a most safety parameters to the surroundings environment , health and safety of construction workers , community/ commuters /passers and its effective mitigation measures.

E.4.1 Temporary Erosion and Sediment Control

The project will employ the erosion and sediment control parameters through the provision of erosion/siltation settlement and collection earth holes to be installed in the temporary diversion canal at a distance of 100 meters. Before reaching the creek, erosion/sediment are settle down at the earth holes to be regularly collected.

E.4.2 Construction Noise Mitigation

Noise generation due to the equipment are to be minimized/eliminated during class hours in the stations near the Bermudez Elementary School. Activities that use equipment near the school premises shall be undertaken during non-class session hour. Equipments that will haul the embankment that will pass through the residential houses are in slow speed and no blowing of equipment horn.

E.4.3 Proper Handling of Construction Waste

Construction waste are to be placed to the designated wastes disposal area. Equipment wastes like oil & fuel be properly deposit in special/toxic provide in safe areas far from the shallow well, 50 meters radius to any existing wells, and other water bodies. Human and domestic waste of construction workers be place on the temporary water sealed toilets and waste bins pits respectively.

E.4.4 Safety

Safety of construction workers is at all level be a top priority. Emergency Kit will be provided by the construction and an emergency life saving rescue team will be organized by the contractor and be capacitated by the LGU through Municipal Health Office. Not only the safety of workers are considered but also the welfare and safety of the passers/commuter.

E.5 Environmental Management Plan for the proposed road sub-project

The project considers the environmental management issues during the conduct of all phase of project development. (see table 7)

Table 7
Environmental Management Plan

Project Activity	Impact issues	Cost	Responsible Institutions
Pre-Construction			
1.F.S.preparation	Feasible & viable project	5,000.00	MPDO
2.Conduct of Survey Inventory of PAP	-Land holder displacement		
-Barangay Consultation	-project social acceptability	10,000.00	MEO,MENRO,MASSO, BC
-Alignment survey	-pass design criteria		
3.Detailed Engineering Design Preparation	Financial estimates and specs	3,000.00	MEO
4. ROW Environmental clearance Acquisition and works procurement document preparation	-Deed of donation/quit claim ,CNC, and procurement	3,000.00	MEO,MENRO,BAC, BC
II-Construction phase		-	Contractor
1.Construction of Bunkhouse & motorpool	-sanitation & used oil spillage		
2.Sub-grade Preparation	-Dust omission	-	contractor
3. Embankment lowering of grade, filing	-Traffic congestion -creation of Back water -Generation of spoils	-	contractor
4.Aggregate base course(gravelling-0.10m thick)	-Dust omission -Sand & gravel source	-	contractor
5.Aggregate sub-base course (0.15m)	-Dust Omission -Sand and gravel source	-	contractor
6.Ditching (open canal)	-Generation of Spoils	-	contractor
7. M & E	-project quality	-	CBMEG, Mun. M & E committee LGU
III.Post-Construction		-	
1. General cleaning and Demolition	-Sanitation & obstruction		
2. Project Turn-over Acceptance	Project management	-	LGU,BROM Team, BC
IV- O & M Phase 1. O & M	-Ease traffic flow -Time travel Reduction -Economic activities -increase Land value -Influx of migrants -Traffic accident	-	MLGU/BLGU

E.6 Environmental Impact Analysis

All measures to mitigate environmental problems are to be considered and attended from the initial construction phase to include also the enrichment of vegetation within the road vicinity.

E.7 Status of environmental clearance and permits

The Certificate of Non-Coverage (CNC) of the project will be facilitated by the Municipal Environment Natural Resources Office (MEHRO) and the acquisition of such document is on process. (see receipt of payment for CNC attached)