

ENVIRONMENTAL AND SOCIAL MITIGATION/MANAGEMENT PLAN

Name of Road : **CONCRETING OF NALUNAO, KALANGAY, MAHABANG PARANG, ALILIW, KABATETE, PIIS FARM-TO-MARKET ROAD SUB-PROJECT**
ID# PRDP-IB-R04A-QUE-004-LUC-001-2014

Location : **LUCBAN, QUEZON**

Implementing LGU : **LUCBAN**

Estimated number of beneficiaries : **1, 543 POPULATION**

New or Rehab : **NEW**

Estimated Total Cost : **75,971,289.77**

A. Site and Design Consideration

1. The Road does not encroach into or traverse any declared protected area of natural habitat
2. The subproject will not displace, disfigure or render inoperable/inaccessible any monument or physical structure of known cultural and historical significance.

B. Environmental Issues and Mitigation Measures

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule/ Duration of the Mitigation Measures	Instrument of Implement ation (POW, Contract, IDP, or O&M Plan)*	Respon sible Unit
1. Temporary increase in sedimentation during construction	<input type="checkbox"/> Topography of the road alignment necessitate massive earthmoving and cutting of clayey or loose topsoil <input type="checkbox"/> Cut materials will consist	<input type="checkbox"/> Earthmoving/ cutting of slopes to be done during dry months <input type="checkbox"/> Proper disposal	During construction	DED/POW ; Contract	Contractor LGU/Bgy

	mainly of hard rocks and are unlikely to generate significant sediments	and compaction of spoils			
2. Potential contamination of surface and groundwater with oil/grease	<input type="checkbox"/> Waste oil and grease from equipment could contaminate surface water <input type="checkbox"/> There will be no or insignificant amount of waste oil/grease	<input type="checkbox"/> Proper handling and disposal of waste oil and grease	During Construction	Contract	Contractor
3. Potential contamination with human waste	<input type="checkbox"/> Some workers would be temporarily housed in a base camp <input type="checkbox"/> Workers would be mostly locals and are expected to go home to their respective houses after work.	<input type="checkbox"/> Set up adequate latrine/toilet facility at the base camp	During Construction	Contract	Contractor
4. Potential disruption of traffic flow	<input type="checkbox"/> The access road and/or segments to be rehabilitated is vital to daily activities of the residents and farmers and need to be kept open to traffic during construction <input type="checkbox"/> The construction will not affect daily movement of residents and farmers	<input type="checkbox"/> Keep the road open to traffic flow and minimize disruptions along the access road and/or construction area; Provide adequate warning signs and traffic personnel when necessary; <input type="checkbox"/> Undertake regular maintenance measures on the passable portions of the roads	During Construction	Contract	Contractor
5. Potential dust/mud nuisance during construction	<input type="checkbox"/> Roads could become powdery during dry days and muddy during rainy days of the construction period <input type="checkbox"/> Access road and/or the construction/ rehabilitation works passes through a populated area	<input type="checkbox"/> Undertake sprinkling of road (including access roads) during dry days, and filling up of potholes during rainy days, especially in residential areas <input type="checkbox"/> Set up speed	During construction	Contract	contractor

		limits for vehicles, especially within residential areas			
6. Landslide/ erosion of exposed road sides resulting in sedimentation of waterways	<input type="checkbox"/> The road will traverse a mountainous area necessitating deep cuts on mountainsides particularly between station 3 and 4 (check DED for deep cuts) <input type="checkbox"/> The exposed slopes will likely consist of highly erodible loose materials <input type="checkbox"/> The cut slopes will be hard materials that would resist erosion <input type="checkbox"/> The rehabilitation work does not involve additional road cuts.	<input type="checkbox"/> Riprap <input type="checkbox"/> Signages <input type="checkbox"/> Include slope protection works at Sta 2+694-2+811; sta. 3 +423.18-3+714.55 ; Sta 3+443-3+508 <input type="checkbox"/> Bio engineering with geomat and cover crop <input type="checkbox"/> Riprap <input type="checkbox"/> Concrete protection wall	During construction	DED/POW contract	Contractor
7. Inadequate drainage resulting in flooding or ponding	<input type="checkbox"/> The road will block run off resulting in flooding on one side of the road during rainy days	<input type="checkbox"/> Installation of cross drain between stations Sta 2+694, 2+811; sta. 3+440; sta. 4+840	During construction	DED/POW contract	Contractor
8. Potential increase use of pesticides due to intensification of cash crop production in the area	<input type="checkbox"/> There is an ongoing IPM Program of DA in the service area <input type="checkbox"/> Farmers in the service area have not been trained on IPM	<input type="checkbox"/> DA to continue to support IPM Program <input type="checkbox"/> LGU to Coordinate with DA on IPM training	Past construction	Capacity Building Plan O&M Plan; Capacity Building Plan	DA LGU Farmers
9. Potential acceleration of denudation of the upland/hilly areas due to intensification of crop production	<input type="checkbox"/> The proposed road will connect to the market an upland/hilly area where farmers are currently practicing erosive farming techniques. The road could help accelerate the denudation of the upland/hillsides rendering them unproductive in a few years <input type="checkbox"/> The road connects only	<input type="checkbox"/> DA to coordinate with LGU for the introduction of sustainable upland farming systems in the area. <input type="checkbox"/> No measure			

	lowland farms to the market	required			
10. Potential increased in encroachments of human activities into the nearby public forest	<p><input type="checkbox"/> The proposed road will improve human access to the nearby public forest, resulting in increased slash and burn cultivation, illegal logging and poaching.</p> <p><input type="checkbox"/> The proposed road does not improve access to a public forest (no nearby public forest)</p>	<p><input type="checkbox"/> Coordinate with DENR for the enactment of ordinance deputizing the local community to enforce forestry laws.</p> <p><input type="checkbox"/> No measure required</p>			
11. Local employment	<input type="checkbox"/> Construction will provide local employment opportunities	<input type="checkbox"/> Hiring priority shall be given to qualified local residents; Implement RI Manual on local hiring	Pre-Construction	Contractor	LGU BGY. contractor
12. Possible discovery of artifacts, bones and other objects of interest during construction of the processing plant	<input type="checkbox"/> Discovery of artifacts, bones and other objects of interest within the 10 meter radius <input type="checkbox"/> Discovery of artifacts, bones and other objects of interest outside the 10 meter radius.	<input type="checkbox"/> Suspension of the activities and immediately report to the PLGU and RPCO SES Focal Person	During Construction Period	Contractor	Contractor
13. Conflict between project implementers and other stakeholders / Grievance during implementation other issues	<input type="checkbox"/> There is an acceptable Grievance Redress Mechanism in place.	<input type="checkbox"/> The project implementers to ensure that all grievances are properly addressed.	Before and during project implementation	Grievance Redress Mechanism Framework contract	MPMIU /Contractor
14. Potential damage to existing road due to hauling of quarry	<input type="checkbox"/> Sources of Quarry may cause damage to existing roads	<input type="checkbox"/> Regular maintenance and repair of existing road by the	During construction	Contract	Contractor

materials		contractor			
15. IP/ICC	<input type="checkbox"/> There is no IP/ICC in the area as per LGU records and on site validation	<input type="checkbox"/> No measure required		n/a	n/a
16. Cutting of Trees	<input type="checkbox"/> The road construction will necessitate cutting of trees: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Coconut <input checked="" type="checkbox"/> Fruit Trees <input checked="" type="checkbox"/> Forest Species <input type="checkbox"/> The trees to be cut are privately owned <input type="checkbox"/> The road construction will not necessitate the cutting of trees	<input type="checkbox"/> Secure cutting permit from: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> PCA <input checked="" type="checkbox"/> DENR-FMR <input type="checkbox"/> Secure permission from the owner to cut the trees <input type="checkbox"/> No measure required	Prior to construction	Tree Cutting Permit/s MOA with the owner/s (if he/she/they will require compensation) Waiver of Rights/Quit Claim (if the trees will be donated as reflected in Form 1)	Contractor LGU
17. Batching Plant Requirement	<input type="checkbox"/> The road construction requires the setting up of 2 batching plant/s <input type="checkbox"/> The batching plant/s will be mobile and operated for less than 1 year <input type="checkbox"/> There is an existing batching plant at a distance of ___ from the project site.	<input type="checkbox"/> Contractor to comply with the requirements stipulated in the supplemental ESMP as applicable to the setting up/construction of batching plant/s	Prior to construction	Contract	Contractor