

ANNEX E-1

Department of Agriculture
Philippine Rural Development Project

TEMPLATE FOR RURAL/FARM-TO-MARKET ROADS

Name of Road:	<u>Construction/Concreting of NRJ Anilao-Mahayahay FMR</u>
Location:	<u>Brgy. Sampaguita, Veruela, Agusan del Sur</u>
Implementing LGU:	<u>MLGU Veruela</u>
Estimated number of beneficiaries:	<u>810</u>
New or Rehab:	<u>Construction/Concreting</u>
Estimated Total Cost:	<u>PhP 28,191,675.01</u>

A. Site and Design Consideration

[Do not proceed with the Subproject preparation including this ESMP unless all items below are confirmed true.]

1. The Road does not encroach into or traverse any declared protected area of natural habitat (*c.f. Loan Agreement: PRDP will not fund subprojects located inside a declared Protected Area*);
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 *[The following are issues frequently associated with Farm to Market Roads. Issues include alleged/perceived impacts, potential impacts, health and safety and environmental risks. Entries in the "Assessment" column should describe or provide qualifications regarding the significance of the issues. Issues that are deemed critical or significant should have a corresponding entry in the "Mitigation" column. Entries in the "Instrument" column should indicate how and where in the measures will be implemented in the Subproject. Please feel free to add, delete or modify any of the items in the template. In preparing the ESMP below refer to the Environmental and Social Assessment Section of the FS for specific safeguards issues and assessments]*

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Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule/ Duration of the Mitigation Measures	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
1. Presence of IP/ICC in the influence area	[√] The site is inside the ancestral domain and there are IP's in the Area.	[√] FPIC [√] Certification from the Tribal Chieftain expressing support to the project [√] Evidence of broad-based consultation conducted by NCIP	Prior to implementation	Consultation Meeting, Documentation	LGU
2. Cutting of Trees	[√] The road construction will necessitate cutting of trees: √Coconut √Trees	[√] Secure cutting permit from: √PCA √DENR-CENRO [√] Secure permission from the owner to cut the trees	Prior to implementation	Tree Cutting Permit/s Waiver of Rights/Quit Claim (if the trees will be donated as reflected in Form 1)	LGU
3. Demolition and Reconstruction of	[√] Temporary structures will have to be removed/demolished during road construction	[√] Assist the owners of the structure in relocating/	Prior to implementation	Waiver of Rights/Quit Claim (if the	LGU

affected structures		rehabilitating the affected structures		owner/s will not require compensation as reflected in Form 1)	
4. Conversion of Land - use/natural habitat due to quarry	[√] Quarry Site is existing and proven as a good source of materials	[√] Quarry materials will be procured from existing site/s: Sampaguita which is/are in a distance of 2kms from the subproject site. Bahayan River Quarry in Trento, 26kms away	During implementation	Quarry Permit	
5. Potential damage to existing road due to hauling of quarry materials	[√] Sources of Quarry will not cause damage to existing roads	[√] No measures required	During implementation	Contract	Contractor
6. Temporary increase in sedimentation during construction	[√] Topography of the road alignment necessitate massive earthmoving and cutting of clayey or loose topsoil [√] Cut materials will consist mainly of hard rocks and are unlikely to generate significant sediments	[√] Earthmoving/cutting of slopes to be done during dry months [√] Proper disposal and compaction of spoils	During implementation	DED/POW ; Contract	Contractor

7. Potential contamination of surface and ground water with oil/grease	[√] Waste oil and grease from equipment could contaminate surface water	[√] Proper handling and disposal of waste oil and grease	During implementation	Contract	Contractor
8. Potential contamination with human waste	[√] Construction workers would be temporarily housed in a base camp	[√] Set up adequate latrine/toilet facility at the base camp	During implementation	Contract	Contractor
9. Potential dust/mud nuisance during construction	[√] Roads could become powdery during dry days and muddy during rainy days of the construction period [√] Access road and/or the construction/ rehabilitation works passes through a populated area	[√] Undertake sprinkling of road (including access roads) during dry days, and filling up of potholes during rainy days, especially in residential areas [√] Set up speed limits for vehicles, especially within residential areas	During implementation	Contract	Contractor
10. Inadequate drainage resulting in flooding or ponding	[√] Drainage issues unlikely	[√] Installation of cross drain/s at the following stations: 0 + 150	During implementation	DED	Contractor

11. Landslide/erosion of exposed road sides resulting in sedimentation of waterways	<input checked="" type="checkbox"/> The cut slopes will be hard materials that would resist erosion <input checked="" type="checkbox"/> The road passes through a relatively benign terrain, cuts will be minimal	<input checked="" type="checkbox"/> Fast growing shrub species	During implementation	DED/POW Or (if budget does not permit) LGU Commitment Letter	Contractor
12. Presence of dangerous road sections due to road topography and elevation	<input checked="" type="checkbox"/> Poor horizontal and vertical road alignment	<input checked="" type="checkbox"/> Provision pavement markings to critical curves <input checked="" type="checkbox"/> Set speed limit	During project implementation	POW	Contractor
13. Possible discovery of artefacts, bones, and other objects of interests during construction of the road	<input checked="" type="checkbox"/> Discovery of artifacts bones and other objects of interests within 10 meter radius <input checked="" type="checkbox"/> Discovery of artifacts bones and other objects of interests outside 10 meter radius	<input checked="" type="checkbox"/> Suspension of the activities and immediately report to the MLGU and RPCO SES Focal Person	During implementation	Contract	Contractor /LGU
14. Potential disruption of traffic flow	<input checked="" type="checkbox"/> The access road and/or segments to be rehabilitated need is vital to daily activities of the residents and farmers and need to be kept open to traffic during construction	<input checked="" type="checkbox"/> Keep the road open to traffic flow and minimize disruptions along the access road and/or	During implementation	Contract	Contractor

	[√] The construction will not affect daily movement of residents and farmers	construction area; Provide adequate warning signs and traffic personnel when necessary;			
15. Local employment	[√] Construction will provide local employment opportunities that will provide a standard salary wage based on RTWPB approved wage rates.	[√] Hiring priority shall be given to qualified local residents	During implementation	Contract	Contractor
16. Grievance during construction	[√] The project has already established an acceptable policy on addressing grievances [√] Access to the Grievance Redress Mechanism (GRM posters and Grievance Form Drop Boxes) is available in strategic locations at all levels of project implementation: <ul style="list-style-type: none"> √Project Site √Barangay Hall/s √Municipal Hall/s 	[√] Establish an acceptable policy on project implementation and grievance redress mechanism [√] Assign a Grievance Focal/Point Person	During implementation	O&M EO creating the MPMIU	LGU and PSO /RPCO Grievance Point Person/Grievance Officer
Batching Plant					
17. Batching Plant Requirement	[√] The road construction requires the setting up of <u>1</u> batching plant/s [√] The batching plant/s will be mobile and operated for less than 1 year	[√] Contractor to comply with the succeeding requirements as applicable to the setting up/ construction of batching plant/s	During implementation	Contract	Contractor
18. Land acquisition for	[√] The proposed site for the Batching plant is within the road-right of way	[√] Project proponent MG)/ Contractor to	Prior to start of	Contract of Lease	Contractor /LGU

the batching plant		secure consent from the concerned IP leader & Brgy. Captain.	construction of the Batch Plant.		
19. Conditions on the Plant Site	<p>[√] The Batching Plant is not situated in a hazardous area.</p>	<p>[√] The proponent LGU to determine suitable sites for setting up of the Batching Plant</p> <p>[√] The site should not be in a flood prone area. Consider the extreme hydrologic event of flood having a 100 year recurrence interval in site selection.</p> <p>[√] The site is away from critical slopes and erodible areas.</p>	In the planning stage	Contract	LGU /Contractor
20. Disturbance to wildlife due to vegetation clearing	<p>[√] The setting up of the Batching Plant will not necessitate clearing of vegetation and/or cutting of trees</p>	<p>[√] Limit land clearing as much as possible</p> <p>[√] Provide temporary fencing to vegetation that will be retained</p> <p>[√] Promote restoration of damaged or destroyed</p>	Prior to start of construction	Contract	LGU /Contractor

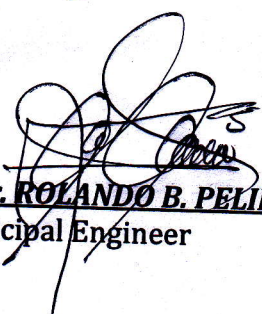
		<p>vegetation where possible (e.g., tree planting).</p> <p>[√] Look for available open spaces within the proximity of the site.</p>			
<p>21. Temporary increase of solid waste during construction of Batching Plant</p>	<p>[√] There will be significant volume of waste generated during clearing and construction</p>	<p>[√] Proper handling and disposal of construction waste</p>	<p>During construction period</p>	<p>Contract</p>	<p>Contractor</p>
<p>22. Potential heavy equipment hazard; i.e. dump trucks, concrete mixers, pay loader etc. during transport of aggregates and fresh concrete</p>	<p>[√] Batching Plant is situated in populated residential area/s.</p> <p>[√] Batching Plant is not located in populated/residential area.</p> <p>[√] The plant is not within a forest/plantation area.</p>	<p>[√] Proper handling and maintenance of heavy equipments during transport and unloading of materials.</p> <p>[√] Properly locate equipment yards in the plant facility.</p> <p>[√] Regular maintenance (water sprinkling) and repair of the access roads to control suspended particulates.</p>	<p>During Plant Operation</p>	<p>O&M</p>	<p>Contractor</p>

		<p><input checked="" type="checkbox"/> Access and exit routes for heavy equipment/dump trucks should be planned to minimize impacts on the environment and amenities of the locality.</p> <p><input checked="" type="checkbox"/> Proper handling and disposal of excess oil, lubricants, paints etc.</p>			
23. Potential hazard and risk to the community/plantation during Batch Plant operation.	<input checked="" type="checkbox"/> Batching Plant site poses risk to the community or plantation due suspended particulates, alkaline wastewater and noise	<p><input checked="" type="checkbox"/> No construction during night time.</p> <p><input checked="" type="checkbox"/> Provide/construct peripheral fence and trees buffers to prevent the spread of suspended particulates.</p> <p><input checked="" type="checkbox"/> Practice proper housekeeping <input checked="" type="checkbox"/> set up a temporary stilling pond for wastewater.</p>	During Plant Operation	O&M	Contractor
24. Occupational health hazards to	<input checked="" type="checkbox"/> Batch Plant and construction workers are exposed to unsafe and hazardous condition	<input checked="" type="checkbox"/> Require all workers to strictly observe safety standards and personal	During Batch Plant Operation	O&M	Contractor

workers	[√] Batch Plant activities are relatively minor	protective equipment. [√] Put up safety signs within the Batch Plant [√] Provide potable water & sanitary facilities for workers within the facility.			
25. Accumulation of excess materials during operation	[√] The Plant will generate significant volume of excess raw materials.	[√] Proper handling and disposal of excess materials [√] Provision of covered dump sites for excess materials.	Batching Plant operation period	O&M	Contractor
26. Increased siltation and water quality degradation due to project activities	Specify nearest/receiving water body: Distance to nearest/ receiving water body: <u>1km</u> If nearest/ receiving water body is fresh water, specify: Anilao Creek Current Water Use: <input type="checkbox"/> Fishery <input type="checkbox"/> Tourist Zone / Park <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Agricultural	[√] Strictly observe proper waste water handling and disposal <input checked="" type="checkbox"/> Set up temporary stilling ponds to minimize downstream siltation in creeks and rivers <input checked="" type="checkbox"/> Recycle wastewater	Batching Plant operation period	O&M	Contractor
27. Dust Emissions	[√] Emission during operation of batching plant will affect the community and	[√] Select a site out from high prevailing winds.	Project operation	O&M	LGU/ Contractor

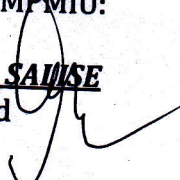
	<p>agri land and forest</p> <p>[√] Emission during operation of batching plant will not affect the community and agri land and forest</p>	<p>This should be considered during the planning period to ensure that bunkers, conveyor's position are in the leeward direction to minimize the effects of winds.</p> <p>[√] Provide natural or artificial barriers – such as trees, fences, and landforms, to help control the emission of dust from the batching plant to the sensitive land uses.</p> <p>[√] Maintain a minimum 100 meters buffer area between batching plants and sensitive land uses. (Sensitive land uses are residential area and zones, hospitals, schools, caravan parks, and the likes)</p>	period		
28. Potential acceleration of	[√] The proposed road will connect to the market an upland/hilly area where farmers are currently	[√] DA to coordinate with LGU for the introduction of	After project completion	O&M Plan; Capacity Building Plan	LGU

denudation of the upland/hilly areas due to intensification of crop production	practicing erosive farming techniques. The road could help accelerate the denudation of the upland/hillsides rendering them unproductive in a few years.	sustainable upland farming systems in the area			
29. Potential increase in encroachments of human activities into the nearby public forest	[√] The proposed road will improve human access to the nearby public forest, resulting in increased slash and burn cultivation, illegal logging and poaching.	[√] Coordinate with DENR for the enactment of ordinance deputizing the local community to enforce forestry laws	After project completion	O&M Plan; Capacity Building Plan	LGU
30. Potential increase use of pesticides due to intensification of cash crop production in the area	[√] There is an ongoing IPM program of DA in the service area	[√] DA to continue to support IPM program [√] LGU to Coordinate with DA on IPM training	During and after project completion	Capacity Building Plan O&M Plan; Capacity Building Plan	LGU



Prepared by: **Engr. ROLANDO B. PELIÑO, MPA**
Municipal Engineer

Adopted by MPMIU:



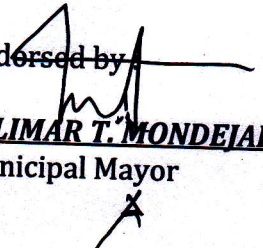
Engr. GIL A. SAUSSE
MPMIU Head

Noted by the local community:



ERIC P. PLAZA
Barangay Captain-Sampaguita

Endorsed by



SALIMAR T. MONDEJAR
Municipal Mayor