

ANNEX E-1

Department of Agriculture Philippine Rural Development Project

Name of Road:	Concreting of Dulangan I - II FMR
Location:	Baco, Oriental Mindoro
Implementing LGU:	LGU of Oriental Mindoro
Estimated number of beneficiaries:	10,226 population; M=5314 ; F= 4912 2,155 households
New or Rehab:	
Estimated Total Cost:	PHP 55,427,053.36 WB Loan Proceeds (80%): 44,341,642.69 DA -GOP (10%): 5,542,705.34 LGU Equity (10%): 5,542,705.34

Table 5. Environmental Issues and Mitigation Measures

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
1. Land or ROW acquisition, and other structures	[x] There are structures (fences, portions of basketball court, waiting sheds, church, school and barangay hall to be slightly affected by the subproject.	<p>[] Disclosure of WB Involuntary Resettlement and compensation guidelines, e.g. market value as basis for pricing of land or crops and other properties</p> <p>[] Prepare compensation package for land or ROW acquisition, and/or crop damage compensation, based on LARRF and prior consultation with project-affected persons</p> <p>[x] Secure proper land acquisition documentation (Deed of Donation or Quit Claim on land /other properties)</p> <p>[] Payment of compensation (if any)</p>	<p>All activities to be done prior to construction works except for the restoration of damaged structures which is simultaneous during the construction</p> <p style="text-align: center;">-do-</p>	<p>Proof of prior consultation and disclosure on WB/GOP guidelines for compensation</p> <p>Presence of compensation package</p> <p>Proof of compensation / payment before construction works</p>	LGU to facilitate the consultations, disclosure, preparation of compensation packages, payment of compensation and oversee the restoration

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
		for the damages [x] Restoration of structures that will be affected.	-do-		PLGU & BLGU
2. Local cutting of trees	[x] Trees along the road and in the area traversed by the road (<i>e.g Mango, and Lanzones, Mahogany, Gmelina etc.</i>) will somehow be affected	[x] Prior acquisition of Tree Cutting Permit(TCP) [x] Compliance with conditions in secured permits [x]Implementation of tree planting	Daily operations After construction	Presence of permit ☑ Compliance with conditions of TCP	LGU or Contractor may apply for the permits ☑ Contractors to implement while the LGU supervises the Contractors PLGU/BLGU
3. 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. [x] Excavated materials will consist mainly of soil and are unlikely to generate significant sediments.	[] Earthmoving/ cutting of slopes to be done during dry months [x] Proper disposal and compaction of spoils [X] No measures required	Daily operations Daily operations	DED/POW; Contract	Contractors to implement and the LGUs to supervise the Contractor
4. Potential contamination of surface and groundwater with oil/grease	[x] Waste oil and grease from equipment could contaminate surface water [] There will be	[x] Proper handling and disposal of waste oil and grease	Daily operations	Contract	Contractors to implement and the LGUs to supervise the Contractor

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
	no or insignificant amount of waste oil/grease				
5. Potential contamination with human waste	<p>[x] Construction workers would be temporarily housed in a base camp</p> <p>[x] Workers would be mostly locals and are expected to go home to their respective houses after work</p>	[x] Set up adequate latrine/toilet facility at the base camp	Prior to construction	Contract	Contractors to implement and the LGUs to supervise the Contractor
6. Worker's safety	<p>[x] Safety of workers and the general public will be given priority.</p> <p>[x] Standard construction safety protocol will be observed, such as posting of road signs and assigning of traffic personnel.</p>	<p>[x]Provide appropriate warning signs and lighting</p> <p>[x]Heavy equipment to observe traffic rules</p> <p>[x]proper scheduling of rehab works along the road and/or assigning a barangay tanod to handle traffic management of pedestrian and vehicles</p>	Daily operations	<p>Presence of signages and lighting</p> <p>☑ # of accidents/ near-accidents reported to the barangay</p> <p>☑ # of public complaint</p>	<p>Contractor's project management and self-monitoring</p> <p>BLGU</p>
7. Potential disruption of traffic flow	<p>[x] 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</p> <p>[x] The construction will not affect daily movement of residents and farmers</p>	<p>[x] 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;</p> <p>[x] Undertake regular maintenance measures on the passable portions of the roads</p> <p>[] No measures needed</p>	<p>Daily operations</p> <p>Daily operations</p>	Contract	Contractor to implement and the LGUs to supervise the Contractor

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
8. The school will likely be disturbed by dust & noise that will be created by the proposed subproject	[x] Roads could become powdery during dry days and muddy during rainy days of the construction period	[x] Wet areas of dust sources to minimize discomfort to nearby school & residents (including access roads) during dry days, and filling up of potholes during rainy days, especially in residential areas	Daily operation and when necessary	Qualitative ambient noise levels within residential standards (based on comparative levels of sound in the natural environment)	Contractor to implement and the LGUs to supervise the Contractor
		[x]school & clinic will be screened off during construction		Presence of screen in school and clinic	Contractor to implement and the LGUs to supervise the Contractor
		[x] installation of road signs in appropriate areas particularly near school and others to prevent risk of road accident	Daily operation	Presence of road signs installed in schools	
		[x] Delivery equipment should be covered with tarpaulin sheets or any equivalent	-do-	☑ Presence of truck cover during deliveries	
	[X] Access road and/or the construction/ rehabilitation works passes through a populated area	[x]Set up speed limits for vehicles, especially within residential areas to lessen suspension of road dust	-do-		Contractor to implement and the LGUs to supervise the Contractor
	[] Access road and/or construction/ rehabilitation does not pass through any populated area	[] No measures needed	-do-		
9. Landslide/ erosion of exposed road sides resulting in sedimentation of waterways	[] The exposed slopes will likely consist of highly erodible loose materials [] The cut slopes will be hard materials that would resist erosion [] The road passes	[x] Include slope protection works (for embankment) at Sta 0 +000 to Station 0 +780 and Sta 1+340 to Sta 1 +400 [] Bioengineering with geomat and cover crop [] Fast growing shrub species	Erosion control and stabilization measures shall be implemented simultaneously with construction works	DED/POW	Contractor to include in their bids the estimate of stabilization and erosion control measures

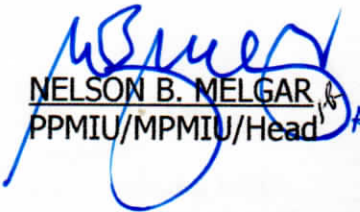
[illegible]

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
13. 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 checked="" type="checkbox"/> The road connects only lowland farms to the market	<input type="checkbox"/> DA to coordinate with LGU for the introduction of sustainable upland farming systems in the area <input checked="" type="checkbox"/> No measure required	Simultaneous to the project		DA
12. Potential increase in encroachments of human activities into the nearby public forest	<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. <input checked="" type="checkbox"/> The proposed road does not improve access to a public forest	<input checked="" type="checkbox"/> Coordinate with DENR for the enactment of ordinance deputizing the local community to enforce forestry laws <input checked="" type="checkbox"/> No measure required	Simultaneous to construction	O&M Plan; Capacity Building Plan	P/BLGU
13. Local employment	<input checked="" type="checkbox"/> Construction will provide local employment opportunities <input type="checkbox"/> Construction does not provide any local employment opportunities	<input checked="" type="checkbox"/> Hiring priority shall be given to qualified local residents; Implement I-BUILD Manual on local hiring <input type="checkbox"/> No measures required	Prior to construction	Contract	P/M/BLGU
14. Conversion of Land-use/natural habitat due to quarry	<input type="checkbox"/> The proposed quarry site is within a private land and need to convert existing land-use <input checked="" type="checkbox"/> Quarry site is existing and proven as a good	<input checked="" type="checkbox"/> Quarry materials will be procured from existing quarry sites: River Quarry at Brgy. Dulangan around 11.7 km, Bucayao River which is 25.58 km, and Mayabig River which is 13.77 km away from	Daily operation	Certification	DPWH

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
	source of quarry materials	the site (accredited qualified source by DPWH) [x] Regular monitoring done by DPWH not to over quarry.			
15. Potential damage to existing road due to hauling of quarry materials	[x]Source of Quarry materials for Items 104, 200 and 311 is Dulangan River which is 11.70 km, and for sand the source is Bucayao River which is 25.58 km, and for boulders the source is Mayabig River which is 13.77 km. Transportation of quarry materials from source to FMR will cause damage to existing FMR	[x] Regular maintenance and repair of existing road by the contractor	Daily operation	Contract	Contractor
16. Possible discovery of artifacts, bones and other objects of interest during construction	[x] lack of awareness on the chance find procedure	[X] Provide awareness and ensure that Chance Find Procedure is implemented	Before and during project implementation	Contract	Contractor
	[x] Discovery of artifacts, bones and other objects of interest within the 10 meter radius	[x] Suspension of the activities and immediately report to the PLGU and RPCO SES Focal Person	During construction period	Contract	Contractor
17. Conflict between project implementers and other stakeholders/grievance during implementation	[x] There is an acceptable GRM in place	[x] The project implementor to ensure that all grievances are properly address	During project pre-implementation	PPMIU/Contractor	Grievance Redress Mechanism Framework


Prepared by: JENNIFER P. MANUBEN

Adopted by PPMIU/MPMIU




NELSON B. MELGAR
PPMIU/MPMIU/Head

Noted by the local community:

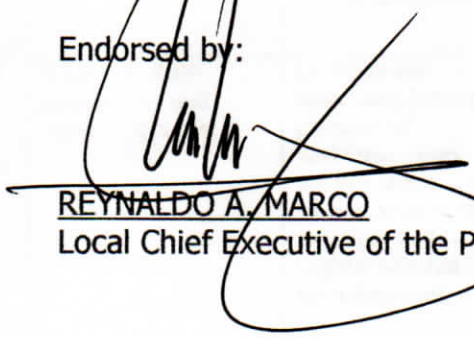


DENNIS GARCIA
Barangay Captain – Dulangan I



ROBERTO A. DE OCAMPO
Barangay Captain – Dulanagan II

Endorsed by:



REYNALDO A. MARCO
Local Chief Executive of the Proponent LGU