

E. Preparation of the Environmental Management Plan (EMP)

GUIDE ON HOW TO USE THE TEMPLATE FOR PROJECT DESCRIPTION/ ENVIRONMENTAL MANAGEMENT PLAN (PD/EMP) FOR FARM-TO-MARKET (FMR) ROADS		
A. GENERAL GUIDANCE		
1.	<p>This PD/EMP Template is applicable only for farm-to-market roads with the following project limits which are not required to secure an Environmental Compliance Certificate (ECC), pursuant to DAO 03-30:</p> <ul style="list-style-type: none"> • <i>For new construction: Less than 2 kms</i> • <i>For rehabilitation/improvement: <50% increase in capacity (in terms of length/ width)</i> 	
2.	<p>This PD/EMP Template is designed and intended to be used primarily for the following purposes:</p> <ul style="list-style-type: none"> • <i>Selection of the most environmentally and socio-culturally acceptable FMR location and design; and</i> • <i>Identification of the requirement of other relevant Philippine regulations, and the environmental and social safeguard requirements of Financing Institutions (FIs) (for proposals which passed the loan-eligibility screening of the FI).</i> 	
3.	<p>This PD/EMP Template may also be used to secure a Certificate on Non-Coverage (CNC) from the DENR-EMB/LLDA/DENR-ARMM. However, the CNC is <u>NOT</u> a government requirement, thus, application for a CNC is at the <u>OPTION/REQUEST</u> of the Proponent for whatever purpose it may serve.</p>	
B. GUIDANCE ON SPECIFIC SECTIONS		
4.	PROJECT ID SECTION	<p>a) <u>Project Name</u>: REHABILITATION OF TAYUGO-PALADONG FMR.</p> <p>b) <u>Project Cost</u> : ₱5,056,607.02</p> <p>c) <u>Project Location</u>:</p> <ul style="list-style-type: none"> • Barangay Tayugo, Isulan, Sultan Kudarat (see attached vicinity map/location map • When rehabilitated, the road shall be an all-weather, gravel-type with 2000 square meters concrete paved, a designed road width of 6 meters, carriageway of 4 meters and with 1 meter shoulders both sides. Aggregate sub-base course and base course materials will be provided, each with a designed thickness of 0.10 and 0.15 meters, respectively. • See attached DED
5.	PROPO-NENT ID SECTION	<p>Project I.D. No. R.I-01-ISU-SKP-12</p> <p>Municipal Government of Isulan, Sultan Kudarat, represented by the Hon. Diosdado G. Pallasigue,</p> <p>064-201-3526/064-201-3424</p>
6.	PROJECT DESIGN & SPECIFICATIONS SECTION	<p>Project Length = 1.809 Kilometers</p> <p>Direct Road Influence Area = 683 hectares,</p> <p>Project Beneficiaries = 826 population, male = 405, Female = 421 with</p> <p>Number of HHs = 531</p> <p>Total Project Cost : ₱5,056,607.02</p> <p>World Bank Loan Proceeds: ₱4,045,285.62 or 80% of Project Cost</p> <p style="text-align: right;">LGU Equity: ₱505,660.70 or 10% of Project Cost</p>

GOP Equity: ₱505,660.70 or 10% of Project Cost		
7.	COMMIT -MENT SECTION	The LGU committed to allocate the counterpart of the projects on its 20% Development Fund. At the same time Barangay Government committed also their share in their 20% Development Fund for the monitoring and maintenance of the project.
8.	ENVIRO N- MENTAL MANAG E-MENT & MONITO R-ING PLAN SECTION	<p>Check the relevant impacts, mitigating measures* and monitoring parameters* per project phase: Pre-construction, Construction and Operation & Maintenance Phases. Check the appropriate responsible unit and identify the specific lead entity. Provide a project-specific estimate of the mitigation and monitoring cost. Assumptions & calculations may be attached, particularly for social measures.</p> <p>*The measures and monitoring parameters are intended to be implemented by the Proponent under its self-regulation program. For FI-assisted projects, the same may be used by the Project Management Office (PMO) or implementing Government Agency (GA) for the monitoring & evaluation (M&E) of the Proponent's performance. The PD/EMP M&E shall be consolidated with the Project M&E for an integrated evaluation of performance & not incur additional costs.</p>
9.	SIGNAT O-RY SECTION	<p>Proponent checks either of the "Yes" or "No" box if it has a) reevaluated Project Design vis-a-vis the PD/EMP results, & b) has actually integrated of the Mitigating/Monitoring Costs in the Final Project Cost. If "Yes" to both questions, the Proponent staff who prepared the PD/EMP signs off the appropriate space, followed by the endorsement signature of the Proponent's authorized representative. For loan applications, the PD/EMP is submitted with the loan package to the PMO/GA* for review/approval.</p> <p>*The PMO or GA Reviewer and Approving Authority consecutively sign-off the space provided in the revised & final version of the PD/EMP Template.</p>

PD/EMP Template No./Ver	:	
Project Type	:	FARM-TO-MARKET ROADS
DAO 03-30 Non-Covered Project Limits	:	a) For new construction: Less than 2 kms b) For rehabilitation/improvement: <50% increase in capacity (in terms of length / width)

1.0 Project ID		
1.1 Project Name/Title	:	<u> </u> Construction / <input checked="" type="checkbox"/> Rehabilitation of <u>TAYUGO</u> – <u>PALADONG FMR</u> <i>(Name of FMR)</i>
1.2 Project Cost	:	P5,056,607.02 % Loan: _____ FI: _____
1.3 Project Location	:	<u>Barangay Tayugo, Isulan, Sultan Kudarat, Region XII</u> <i>(Sitio/Zone, Barangay, Municipality/City, Province, Region)</i>
Attachment 1: Location/Vicinity <i>map</i> of 1:10,000 scale, indicating the FMR location and showing major landmarks in the vicinity		
Attachment 2: Site <i>photos</i> facing N, S, E, W of the site		

2.0 Proponent ID		
2.1 Name of Proponent	:	HON. DIOSDADO G. PALLASIGUE, Municipal Mayor
2.2 Address of Proponent	:	<u>Municipal Government of Isulan, Sultan Kudarat, Region XII</u> <i>(Sitio/Zone, Barangay, Municipality/City, Province, Region)</i>
2.3 Contact Person	:	<u>OVETTE C. VIRAY</u> <i>MRDP Focal Person (Rural Infrastructure)</i> 064-201-3470 / 09065860046 / denvette2000@gmail.com <i>(State Name, Position, Landline, Cell phone, Fax and/or Email address)</i>

3.0 Project Design & Specifications <i>(Instructions: Check applicable box/es & input specs on space provided. Attach supplemental information where deemed necessary for planning/costing purposes)</i>		
3.1	Length: [] construction: _____ m [<input checked="" type="checkbox"/>] rehabilitation/improvement: 1809 meters (____% of total FMR length of _____ m)	
3.2	Width: [] construction: _____ m [] rehabilitation/improvement: 6 meters (____% of total FMR width of _____ m)	
3.3	Road Material: [] earth [<input checked="" type="checkbox"/>] gravel [] asphalt [<input checked="" type="checkbox"/>] concrete	
3.4	Bank stabilization: [] Left Bank: _____m [] Right Bank: _____m Type: [] vegetative [] mechanical/riprap	
3.5	Drainage Description:	
3.6	Temporary Facilities:	
	[<input checked="" type="checkbox"/>] Basecamp/admin/canteen/sanitary facilities [] Construct [<input checked="" type="checkbox"/>] Lease Area: 50 m ²	
	[<input checked="" type="checkbox"/>] Staging/Motorpool [] Construct [<input checked="" type="checkbox"/>] Lease Area: 50 m ²	
	[<input checked="" type="checkbox"/>] Solid Waste Disposal Facility Area: 50 m ² , located _____m, [] N [] S [] E [] W of the site	

3.7	Construction Equipment and Ancillary Facilities:
	<input checked="" type="checkbox"/> Transport vehicles: _____ (quantity)
	<input checked="" type="checkbox"/> Heavy equipment : _____ (quantity)
	<input checked="" type="checkbox"/> Generator Set : _____ (quantity) ; _____ horsepower or _____ kW
	<input type="checkbox"/> Fuel Tank : _____ (quantity) ; _____ liters (volume)

4.0 Commitment Section
<p>We are committed to:</p> <p>a) Comply with all mitigating measures necessary to minimize negative impacts & address enhancement measures to maximize positive impacts, as presented in Section 5.0 of the PD/EMP Template below;</p> <p>b) Comply with other applicable rules, regulations, guidelines and criteria; and</p> <p>c) Properly inform the contractor, residents of the barangay and other stakeholders on the PD/EMP commitments and other public agreements in connection with the project.</p>

5.0 Environmental Management and Monitoring Plan (Instructions: Check applicable boxes &/or input data where asked. Attach supplemental information where deemed necessary for planning/costing purposes)

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring Parameters	Responsible Agency/ Unit	Cost of Mitigation/ Monitoring
1.0 Pre-construction Phase (Site Selection, Planning/Design, Procurement, Hiring)					
1.1 Site Selection and Planning/ Design	<input type="checkbox"/> Encroachment in Protected Areas/ natural/critical habitats (e.g. mangrove/forest ecosystems, coral reefs, & other aquatic ecosystems) <input type="checkbox"/> Inconsistent with protected area zoning	<input type="checkbox"/> Consider alternative site or design to be compatible with the PA zoning <input type="checkbox"/> Secure PAMB Resolution for PA		<input type="checkbox"/> LGU _____ _____ <input type="checkbox"/> PO/NG O _____ _____	NONE
	<input type="checkbox"/> Damage to flora and disturbance to fauna in forest areas/other critical habitats	<input type="checkbox"/> Consider alternative site or design to reduce effects on flora and fauna <input type="checkbox"/> Secure Special Land Use Permit, Tree Cutting Permit and/or Right-of-Way Permit from DENR-FMB and permits from PAWB for affected wildlife		<input type="checkbox"/> LGU _____ _____ <input type="checkbox"/> PO/NG O _____ _____	NONE
	<input checked="" type="checkbox"/> Land acquisition, ROW conflict, resettlement, structure and crops damage, business loss	<input type="checkbox"/> Consider alternative site with less or no involuntary resettlement issues <input checked="" type="checkbox"/> Secure Deed of Donation or Quit Claim on land <input type="checkbox"/> Prepare compensation package, e.g. Land Acquisition, Resettlement & Rehabilitation Plan (LARRP) or Resettlement Action Plan (RAP) thru prior consultation with Project Affected Persons (PAPs) <input type="checkbox"/> Identify resettlement site (if selected as option) and subject the RAP to consultation with host community <input type="checkbox"/> Implement the LARR/RAP, including payments of compensation, at least a month prior to start of Construction Works		<input type="checkbox"/> LGU _____ _____ <input type="checkbox"/> PO/NG O _____ _____	₱5,000.00
	<input type="checkbox"/> Encroachment in areas with IPs/lands with Ancestral Domain Claim	<input type="checkbox"/> Reroute FMR if possible to lessen impacts, unless the IPs are among the beneficiaries of the FMR <input type="checkbox"/> Apply for FBI and secure FPIC from the IPs thru the NCIP		<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG O _____ _____	NONE
	<input type="checkbox"/> Damage or cause disturbance to	<input type="checkbox"/> Change the FMR location or design to avoid or lessen		<input type="checkbox"/> LGU _____	

<i>Project Phase / Activities</i>	<i>Possible Environmental Impacts</i>	<i>Mitigating Measures</i>	<i>Monitoring Parameters</i>	<i>Responsible Agency/ Unit</i>	<i>Cost of Mitigation/ Monitoring</i>
	adjacent or nearby sites of Cultural Heritage	probability of damage <input type="checkbox"/> Secure NHI clearance & coordinate on design/ construction works		<input type="checkbox"/> PO/NG O	NONE
	<input checked="" type="checkbox"/> Unstable or disturbed slopes/ banks may cause damage to FMR	<input checked="" type="checkbox"/> Include in the design appropriate erosion control, slope stabilization and protection measures		<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG O	c/o DED
	<input checked="" type="checkbox"/> Negative reactions from the public due to lack of information and coordination	<input checked="" type="checkbox"/> Hold consultative meetings with project beneficiaries and affected persons on the project components and mgt plan		<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG O	P5,000.00
	<input checked="" type="checkbox"/> Damage existing utilities and structures , resulting in disruption of service	<input checked="" type="checkbox"/> Re-locate or redesign road route to avoid or minimize damage <input checked="" type="checkbox"/> Conduct prior coordination with utility companies and undertake timely information to the public to minimize inconvenience for loss of service		<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG O	
1.2 Procurement	<input checked="" type="checkbox"/> Possible illegal or unauthorized sourcing of raw/construction materials	<input checked="" type="checkbox"/> Procure construction materials from licensed sources, i.e. for sand and gravel, from those with valid MGB/EMB permits; for timber resources, from those with valid FMB/EMB permits		c/o O & M	
1.3 Hiring of labor and other manpower services	<input checked="" type="checkbox"/> Increased employment opportunity and community income <input checked="" type="checkbox"/> Entry of external workforce	<input checked="" type="checkbox"/> Give hiring preference to qualified local community residents, particularly those who will be displaced		c/o Contractor & LGU	
2.0 Construction Phase					
2.1 Mobilization/ Temfacil /Bridge Construction/ Demob	<input checked="" type="checkbox"/> Soil erosion and landslides due to clearing/ excavation operations	<input checked="" type="checkbox"/> Provide slope protection through bank compaction, rip-rapping on critical sections, or vegetative stabilization <input type="checkbox"/> Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils	<input type="checkbox"/> Presence of eroded areas near the site <input type="checkbox"/> Occurrence of landslide	Contractor: _____ _____	c/o D.E.D
	<input type="checkbox"/> Removal of vegetation and disturbance to wildlife	<input type="checkbox"/> Secure prior DENR Tree Cutting Permit (TCP) <input type="checkbox"/> Do replacement planting with double purpose of serving as vegetation buffers for disturbed wildlife <input type="checkbox"/> In forest roads, put up wildlife conservation signs, and set guidelines with corresponding IEC for workers to prohibit wildlife collection, hunting,	<input type="checkbox"/> Presence of FMB TCP <input type="checkbox"/> Area replanted <input type="checkbox"/> Presence of signages <input type="checkbox"/> # of violations to set guidelines	Contractor: _____ _____	

<i>Project Phase / Activities</i>	<i>Possible Environmental Impacts</i>	<i>Mitigating Measures</i>	Monitoring Parameters	Responsible Agency/ Unit	Cost of Mitigation/ Monitoring
		poaching, with meaningful consequences for violation such as employment termination			
	✓ Dust suspension from spoils stockpiles , vehicle movement in unpaved roads & construction works	<ul style="list-style-type: none"> ✓ Compact spoils storage areas ✓ Wet areas of dust sources to minimize discomfort to nearby residents ✓ Control of vehicle speed to lessen suspension of road dust 	<input type="checkbox"/> # public complaints received by Proponent/ Contractor	Contractor: _____ _____	
	✓ Obnoxious gas & particulate emissions from vehicles, heavy equipment & genset	<ul style="list-style-type: none"> ✓ Regular equipment M&R <input type="checkbox"/> Contractor to present proof of compliance with emission standards as part of the annual vehicle registration process 	<input type="checkbox"/> Presence of black smoke from construction sources	Contractor: _____ _____	
	✓ Noise generation from heavy equipment & genset operations	<ul style="list-style-type: none"> ✓ Schedule equipment movement during non-peak hours of daytime vehicular traffic ✓ Minimize nor preferably no night-time construction activities <input type="checkbox"/> Provide housing for gensets, if near residences ✓ Provide silencers/mufflers for heavy equipment 	<input type="checkbox"/> # public complaints received by Proponent/ Contractor	Contractor: _____ _____	
	✓ Increased river turbidity & siltation , causing inconvenience in community use of the affected river water	<ul style="list-style-type: none"> ✓ Set up sediment traps along rivers and/or gabions along banks to filter out eroded sediments ✓ Same measures above for erosion control and slope stabilization 	<input type="checkbox"/> # public complaints received by Proponent/ Contractor	Contractor: _____ _____	
	✓ Oil & grease contamination of waterbodies due to poor equipment M&R & refuelling	<ul style="list-style-type: none"> <input type="checkbox"/> Provide oil & grease traps in stilling ponds ✓ Provide ring canals around fuelling tanks/ motorpool/ maintenance areas ✓ Collect used oils in containers 	<input type="checkbox"/> Presence of oil film on water surface; <input type="checkbox"/> # public complaints received by Proponent/ Contractor	Contractor: _____ _____	
	✓ Decreased public access through the construction area	<ul style="list-style-type: none"> ✓ Designate an alternate route for pedestrian and vehicles in coordination with the LGU or provide safe passageway thru the construction site 	<input type="checkbox"/> # public complaints received by Proponent/ Contractor	Contractor: _____ _____	
	✓ Increased traffic due to frequent heavy equipment/ vehicle movement	<ul style="list-style-type: none"> ✓ Schedule vehicle movement during lean daytime traffic hours or at night. ✓ Provide traffic aides/flagmen (e.g. thru barangay) , traffic signs to help ensure the free and safe flow of traffic ✓ Maintain & Repair temporary alternative route of vehicles & pedestrians. 	<input type="checkbox"/> Presence of traffic signs <input type="checkbox"/> # of public complaints received by Proponent/ Contractor <input type="checkbox"/> Occurrence of traffic build-up	Contractor: _____ _____	
	✓ Increased community hazards	<ul style="list-style-type: none"> ✓ Provide appropriate warning signs, lighting and barricades, 	<input type="checkbox"/> Presence of signages	Contractor: _____	

<i>Project Phase / Activities</i>	<i>Possible Environmental Impacts</i>	<i>Mitigating Measures</i>	Monitoring Parameters	Responsible Agency/ Unit	Cost of Mitigation/ Monitoring
	of vehicular accidents and construction works	whenever practicable ✓Observe traffic rules, e.g. vehicle speed ✓Observe proper housekeeping during construction and demobilization to clear site of construction debris ✓Provide on-site medical services and supplies for any emergency, thru institutional and administrative arrangements with the barangay health unit	<input type="checkbox"/> # of accidents <input type="checkbox"/> Presence of scattered construction debris	_____	
	✓ Occupational health hazards to workers	✓Require all workers to strictly observe safety standards ✓Put up safety signs along the road construction route ✓Provide potable water & sanitary facilities for construction workers	<input type="checkbox"/> Presence of signages <input type="checkbox"/> Quality of water source <input type="checkbox"/> Presence of adequate sanitary facilities <input type="checkbox"/> # of medical complaints or cases	Contractor: _____	
	✓ Increased micro-economic activity within the area	✓Coordinate with the LGU on management of traffic & handling of solid waste ✓Comply with city/town ordinances	<input type="checkbox"/> # businesses <input type="checkbox"/> Presence of clean commercial area <input type="checkbox"/> Low traffic	Contractor: _____	
	<input type="checkbox"/> Damage to cultural property which may be traversed or encountered during construction	<input type="checkbox"/> Reroute road, if possible <input type="checkbox"/> If not possible to reroute, observe reporting and conservation protocols based on prior coordination with the NHI/NM	<input type="checkbox"/> Presence of clearance <input type="checkbox"/> # of public complaints received by Proponent & Contractor	Contractor: _____	
	✓ Impact to IPs, women & other vulnerable groups who may be affected by the road construction, including those who may be inconvenienced in their use of the river downstream for domestic works.	✓Addressed by measures to prevent water quality impacts ✓Prior consultation & coordination to minimize disruption on daily domestic activities & avoid violation of human rights	<input type="checkbox"/> # of public complaints received by Proponent & Contractor	Contractor: _____	
	✓ Over-flooding of the roadway due to excessive accumulation of rainwater and undiverted	✓Provision of adequate drainage system and proper road grading so that roadway will not be prone to flooding & erosion	<input type="checkbox"/> Pools of water on the road after rains	Contractor: _____	

<i>Project Phase / Activities</i>	<i>Possible Environmental Impacts</i>	<i>Mitigating Measures</i>	<i>Monitoring Parameters</i>	<i>Responsible Agency/ Unit</i>	<i>Cost of Mitigation/ Monitoring</i>
	waterways				
2.2 Monitoring of quality of construction works	<input checked="" type="checkbox"/> Poor M&E or lack of it can result to sub-standard construction or use of sub-standard materials , potentially resulting to structural damages which can unnecessarily expose FMR users to hazards and accidents <input checked="" type="checkbox"/> Good Maintenance result to Quality Assurance for sustainability of FM	<input checked="" type="checkbox"/> Regular Project M&E integrates environmental M&E on conformance to original design/specs <input checked="" type="checkbox"/> Allocation of sufficient budget for project M&E <input checked="" type="checkbox"/> Designate, deputize or enter into an agreement with the barangay LGU or local community for transparent M&E of construction works <input checked="" type="checkbox"/> Provision for Contractor's performance bond or withholding final payment until repairs are done before turn-over by the Contractor to the LGU/PO/NGO	<input type="checkbox"/> Occurrence of damages during construction <input type="checkbox"/> Visual presence of sub-standard materials <input type="checkbox"/> % completion per schedule and budget	Contractor: _____ _____ <input type="checkbox"/> LGU: _____ <input type="checkbox"/> P <input type="checkbox"/> O/NG <input type="checkbox"/> O _____ _____ Local Community Rep: _____	
3.0 Operation and Maintenance					
	<input checked="" type="checkbox"/> Unsustained FMR operations at optimum capacity due to structural damages	<input checked="" type="checkbox"/> Prepare and implement an acceptable O & M Plan <input checked="" type="checkbox"/> Sustained and regular monitoring and maintenance & repair of FMR structure <input checked="" type="checkbox"/> Allocate sufficient budget for M&E and maintenance and repair <input checked="" type="checkbox"/> Designate, deputize or enter into an agreement with the barangay LGU or local community for M&E of the FMR status <input checked="" type="checkbox"/> Provide appropriate load limit sign at FMR approach to lessen/prevent passing of overloaded vehicles	<input type="checkbox"/> No. of accurate reports on O & M status <input type="checkbox"/> No. of back-jobs <input type="checkbox"/> % repaired cracks	<input type="checkbox"/> LGU: _____ <input type="checkbox"/> P <input type="checkbox"/> O/NG <input type="checkbox"/> O _____ _____ Local Community Rep: _____	Cost of measures integrated in Project M&E: LGU operations PhP _____ (Note: Signages earlier integrated in Construction Cost)
	<input checked="" type="checkbox"/> Obstruction of water flow and aggregation of garbage	<input checked="" type="checkbox"/> Regular removal of debris and other materials clogging the road culverts upstream of the FMR that may obstruct water flow	<input type="checkbox"/> Occurrence of accumulated garbage upstream of the FMR <input type="checkbox"/> Occurrence of damming	<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG <input type="checkbox"/> O _____	Debris Collection is LGU cost
	<input checked="" type="checkbox"/> Exposure of FMR users to vehicular hazards	<input checked="" type="checkbox"/> Provide appropriate vehicular safety warning signs at FMR approach	<input type="checkbox"/> # of accidents	<input type="checkbox"/> LGU _____ <input type="checkbox"/> PO/NG <input type="checkbox"/> O _____	Cost of signages was earlier integrated in Construction Cost

IMPORTANT REMINDER! HAVE YOU DONE THE FOLLOWING BEFORE FINALIZING YOUR PROJECT DESIGN & LOAN DOCUMENTS?		
	YES	NO
a) Have you re-evaluated the Project Design and integrated the relevant mitigating measures identified in the PD/EMP above ?	/	
b) Have you actually integrated the corresponding mitigating/monitoring costs into the Final Project Cost?		/

Prepared by:	Endorsed by:
<u>OVETTE C. VIRAY</u> (Signature over Printed Name) LGU: _____ PO/NGO: _____ _____ (Date signed)	<u>DIOSDADO G. PALLASIGUE</u> (Signature over Printed Name) LGU: _____ PO/NGO: _____ _____ (Date signed)

Based on the submitted loan application documents:

Final PD/EMP Reviewed by:	Reviewed PD/EMP Approved by:
_____ (Signature over Printed Name) PMO: _____ GA : _____ _____ (Date signed)	_____ (Signature over Printed Name) PMO: _____ GA : _____ _____ (Date signed)

Distribution of approved copies:

Proponent - original PMO - copy GA- copy

