#### **ROAD AND BRIDGE PROJECTS**

# INITIAL ENVIRONMENTAL EXAMINATION (IEE) CHECKLIST For

### **CONCRETING OF DULANGAN I - II FARM TO MARKET ROAD**

**Project Name or Title** 

This IEE Checklist Report shall be used for proposed **ROAD AND BRIDGE PROJECTS** to be located within **Environmentally Critical Areas (ECA)**.

Please check applicable project category:

<b>✓</b>	Projects	Project Size Parameter	Corresponding Project Size/Threshold
	Bridges and viaducts, new construction	length	≥80 m but <10.0 km
	Roads, new construction, widening (including RO-RO facilities)	length with no critical slope, OR length with critical slope	≥ 2 km but < 20.0 km, OR ≥ 2 km but < 10.0 km
	Elevated roads, flyover/cloverleaf/ interchanges		Regardless of length and width
	Tunnels and sub-grade roads and railways	length	< 1.0 km
	Pedestrian passages		All underpass projects

### For ECC applications, this IEE Checklist Report shall be submitted with:

- Proof of Compatibility with the existing Land Use Plan
- Proof of Authority over the Project Site
- Accountability Statements of Proponent (see attached form) and the Preparer (if any, following Annexes 2-22 of Revised Procedural Manual for DAO 2003-30)
- Photographs or plates/vicinity map of the project site showing impact areas and affected areas and communities
- Duly Accomplished Project Environmental Monitoring & Audit Prioritization Scheme (PEMAPS) Questionnaire (see Annex 2-7d of Revised Procedural Manual for DAO 2003-30) (No other documents shall be required as pre-requisite to ECC applications per DENR MC 2010-14)

Read the questions carefully and write the required information on the blank spaces provided or otherwise check ( $\checkmark$ ) the appropriate boxes  $\square$  or parenthesis (). Boxes with check marks ( $\boxtimes$ ) are automatically required. Use additional sheets if necessary and indicate this in the appropriate space.

Project proponents are strongly **discouraged** to engage the services of consultants/facilitators/preparers to accomplish/fill-up the IEE Checklist Report Form. The Report Forms have been designed to be user-friendly.

Furthermore, EMB Regional Office is required to complete the processing of an ECC application using the IEE Checklist Report within twenty (20) working days upon receipt for duly-accomplished forms with complete attachments

Misleading or erroneous answers are basis for legal actions and/or denial of ECC issuance.

# PROJECT FACT SHEET

Project Name:	CONCRETING OF DULANGAN I-II FARM TO MARKET ROAD			
Project Location:	Barangay Dulangan I & Barangay Dulangan II, Baco			
Road/Bridge Width:	10 m including 1.50m shoulder both sides and 1.0m drainage canal both sides			
Road/Bridge Length:	7.847 km			
Project Proponent:	Provincial Local Government Unit of Oriental Mindoro			
Office Address:	Provincial Capitol, Camilmil, Calapan City, Oriental Mindoro			
Contact Person:	ENGR. ELMER V. DILAY			
Designation:	Provincial Engineer			
<b>Contact Information</b>				
Telephone Number:	(043) 286 - 7144			
Fax Number:				
Mobile Number:				
E-mail Address:	<del></del>			
I. PROJECT DESCRIPTION				
1.1 PROJECT LOCATION AND	AREA: Street Name, Barangay, and Municipality/City, Province			
Barangay Dulangan I &	& Dulangan II, Baco, Oriental Mindoro / 78,470 sq. m			
See attached vicinity map/s and photographs of the project site including alignment and design.				
Geographic coordinates of the	e project area (Preferably use WGS 84 datum, otherwise specify datum			

useuj.		
Perimeter/Boundary points (based on OCT/TCT/etc)	Longitude	Latitude
	121° 6′ 30.14″E	13° 20′ 51.12″N

# 1.2 PROJECT COMPONENTS

Facilities	Length /	Specification/Description/Remarks
	Area	
1. Road	(meters) 7,847.00 m /	Concreting / Width of concrete is 5.0m,
1. Koau	78,470 sq.m.	shoulder is 1.50m both sides and grouted
		riprap canal is 1.0m both sides/ width of
		existing PCCP are 4.0m and 5.0m in some
		portion
2. Intersections		
3. Bridge/s		
4. Access roads/Ramp		
5. Drainage facilities (i.e. Reinforced Concrete Box Culverts (RCBC);Reinforced Concrete Pipe Culverts (RCPC), others)		3 lines – 1220mm Ø RCPC x 10.0m at Sta 0 + 200, additional 3 pcs – 910mm Ø RCPC at Sta 0 + 507, additional 3 pcs – 910mm Ø RCPC at Sta 0 + 542, additional 3 pcs – 910mm Ø RCPC at Sta 0 + 606.6, additional 3 pcs – 910mm Ø RCPC at Sta 0 + 637, 1 line – 910mm Ø RCPC x 8m at Sta 2 + 409, 1 line – 910mm Ø RCPC x 8m at Sta 2 + 665, 1 line – 610mm Ø RCPC x 12m at Sta 2 + 802, 1 line – 610mm Ø RCPC x 12m at Sta 2 + 802, 1 line – 610mm Ø RCPC x 8m at Sta 3 + 311, 2 lines – 610mm Ø RCPC x 8m at Sta 3 + 311, 2 lines – 610mm Ø RCPC x 8m at Sta 3 + 990, 1 line – 610mm Ø RCPC x 8m at Sta 5 + 290,1 line – 610mm Ø RCPC x 8m at Sta 5 + 430,1 line – 610mm Ø RCPC x 8m at Sta 5 + 480,1 line – 610mm Ø RCPC x 8m at Sta 5 + 810,1 line – 610mm Ø RCPC x 8m at Sta 5 + 80,1 line – 610mm Ø RCPC x 8m at Sta 5 + 906,1 line – 610mm Ø RCPC x 8m at Sta 6 + 208 and 1 line – 610mm Ø RCPC x 8m at Sta 7 + 044,
6. Associated facilities (i.e. Guardrails, Traffic signs, etc.)		Provide adequate warning signs and traffic personnel
7. Solid waste management facility		
8. Others, specify		

(Use additional sheets if needed)

# 1.3 UTILITIES/REQUIREMENTS (Construction Phase):

Utilities	Source	Estimated Demand/Consumption
Power/Electricity (Total)		KWh
Power/Electricity (From Renewable Energy Sources)		KWh
Water (Total) (Fill-up table below if water is not obtained from the local water utility)		m³/day
Water (Rainwater Collection System)		m³/day

Water Source				
[ $\sqrt{}$ ] ground water	[] well	[] spring	[ ] others: <u>Deepwell</u>	
$[\sqrt{\ ]}$ Surface water	[] river	[] lake	[ ] others: <u>creek</u>	
Location of w	zater source			
Brgy. Dulang	an I, Baco, Ori	<u>iental Mindor</u>	<u>10</u>	
(Sitio	/Zone. Barana	av. Municipal	lity/City, Province, Region)	
(3.3.3)			,,,	

**Energy/Water Efficiency** 

Utilities	Estimated Savings	Proposed Efficiency/Conservation Measures
Power/Electricity	KWh	
,		
Water	m³/day	

## 1.4 MANPOWER

## a. Construction Phase

Manpower	Expertise/Skills	Total
Requirement		
Project Engineer	Supervision	1
Materials Engineer	Quality of materials	1
Foreman	Lead man	6
H.E Operator	Operation of heavy equipment	17
H.E helper	Assist H.E. operator	17
L.E. Operator	Operation of light equipment	10
L.E. helper	Assist L.E operator	8
Laborer		60
Instrument man	Survey of road and drainage	1
	elevation	
Survey Aide		1
Mason		12
Steelman		4
Carpenter		4
Total		142

# 1.5 INDICATIVE PROJECT COST

Project Cost (PhP): 56,889,931.58

## II. ENVIRONMENTAL IMPACTS AND MANAGEMENT PLAN

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
LAND				
■ Consistency with land use	Current land use w/in 1km radius (as per zoning ordinance):  Residential Commercial/Institutional Industrial Agricultural/Recreational Protected Areas Others, specify Actual land uses w/in 1km radius: Residential Commercial/Institutional Industrial Agricultural/Recreational Protected Areas Others, specify Agricultural/Institutional Protected Areas Others, specify	See attached proof of compatibility with land use		

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
Disturbance to wildlife due to vegetation clearing	Existing vegetation in the area:  Forestland  Marshland  Grassland  Mangrove  Wetland  Others, specify  Agroforest	<ul> <li>✓ Compliance with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit</li> <li>✓ Limit land clearing as much as possible</li> <li>✓ Provide temporary fencing to vegetation that will be retained</li> <li>✓ Promote restoration of damaged or destroyed vegetation where possible (e.g., road side tree planting);</li> </ul>	Annual inspection of area replanted/revegetated	Cost integrated in the construction /operation cost
☐ Change in surface landform/topography/terrain/slope☐ Soil Erosion☐	Slope:  ☑ flat (0-3%)  ☐ gently sloping to rolling (3-18%)  ☐ steep (>18%)  Is the project site located in an area identified by MGB/PAG-ASA/ PHIVOLCS as hazard prone?  ☑ Yes  ☐ No	<ul> <li>□ Provide erosion control and slope protection measures</li> <li>□ Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils</li> <li>□ Construction during dry season</li> <li>□ Stabilization of embankment with grasses, trees or other soil cover /construction of rip-rap</li> <li>□ Others, specify</li> <li>□ Compliance with the DENR Administrative Order No. 2003-30 and DENR Administrative Order No. 2000-28, Implementing Guidelines on Engineering Geological and Geohazard Assessment (EGGA).</li> </ul>	<ul> <li>□ Regular inspection of slope protection measures in erosion-prone areas</li> <li>□ Regular inspection for new eroded areas near the site</li> <li>□ Others, specify</li> </ul>	Slope/ Erosion Control Cost:  Others, specify

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
Soil/Land contamination due to improper solid waste disposal	Existing soil type in the area:  □ sandy □ clay □ sandy-loam ☑ Others, specify Catanauan silt loam	<ul> <li>✓ Implementation of the Ecological Solid Waste Management Plan (ESWMP);</li> <li>□ Set-up temporary fence around the construction area</li> <li>✓ Implement re-use and recycling of waste materials</li> <li>✓ Implement proper segregation, collection and disposal of domestic wastes in designated areas</li> <li>□ Implement proper collection, labeling and storage of hazardous waste</li> <li>□ Provide receptacles / bins for solid wastes</li> <li>□ Coordinate with the municipal / city waste collectors</li> <li>□ Engage third party company for waste collection</li> <li>□ Others, specify</li> </ul>	<ul> <li>✓ Daily inspection of waste/recycling bins for segregation</li> <li>✓ Daily inspection for presence of mixed garbage in the facility</li> <li>✓ Weekly inspection of waste accumulated</li> <li>☐ Others, specify</li> </ul>	Cost integrated in the construction /operation cost
☐ Encroachment into protected areas or ecologically-sensitive areas	Is the project area near protected areas or ecologically-sensitive areas?  Yes No	Obtain appropriate permits/clearances from concerned agencies  Provide adequate buffer  Others, specify ———	Regular coordination with concerned agencies	Cost integrated in the construction/operation cost
<ul><li>☐ Impairment of visual aesthetics</li><li>☐ Devaluation of land values</li></ul>	Presence of visually significant landforms/landscape/structures?  Yes	<ul> <li>☐ Implement landscaping and other beautification measures</li> <li>☐ Provide adequate buffer</li> <li>☐ Compensate adjacent property owners</li> </ul>	<ul> <li>□ Regular inspection of landscaping and other beautification activities</li> <li>□ Regular monitoring of buffer zones</li> </ul>	Cost integrated in the construction/operation cost

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
•	□ No	Others, specify reconstruction of fence	Regularly monitor presence/absence of complaints from adjacent property owners	S
WATER				
☐ Increased siltation due to project activities ☐ Water quality degradation ☐ Others, specify ———	Specify nearest/receiving water body:  Distance to nearest/receiving water body:  0 to less than 0.5 km  0.5 to 1 km  More than 1 km  If nearest/receiving water body is fresh water, specify classification:  AA  B  C  D  If nearest/receiving water body is coastal or marine water, specify classification:  SA  SB  SC  SD	<ul> <li>✓ Set-up proper and adequate sanitary facilities</li> <li>☐ Strictly require the contractor and its workers to observe proper waste disposal and proper sanitation</li> <li>✓ Strictly observe proper waste handling and disposal</li> <li>☐ Set up silt trap(Gabions, Fascines)/settling ponds to minimize downstream siltation</li> <li>☐ Others, specify</li> <li></li></ul>	Regular (ocular) inspection of:  Drainage / canal systems Sanitation facilities  Regular (ocular) inspection of water body for: Turbidity and/or silted condition Floating wastes or debris	Cost integrated in the construction/ operation cost

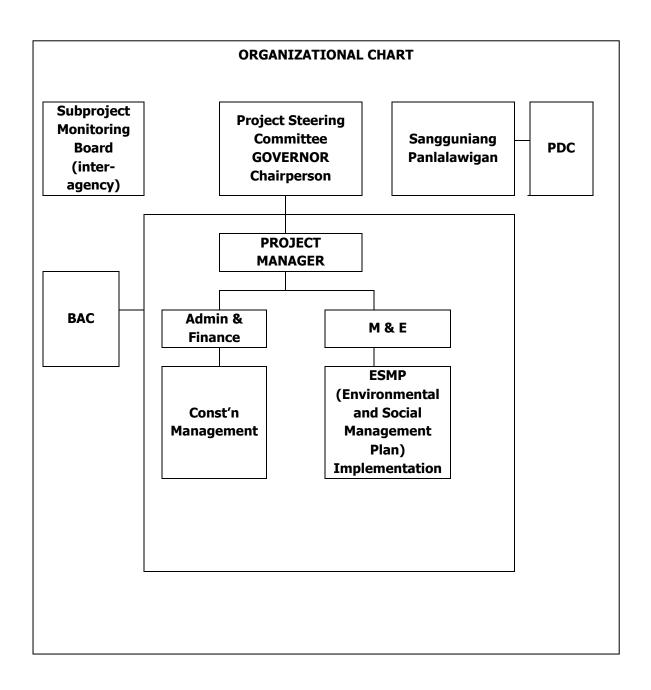
Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
☐ Competition in water use ☐ Depletion of water resources	Current Water Use:  ☐ Fishery ☐ Tourist Zone / Park ☐ Recreational ☐ Industrial ☑ Agricultural  Distance of project area to the nearest well used: ☐ 0 to less than 0.5 km ☑ 0.5 to 1 km ☐ More than 1 km  Use of the nearest well: ☑ Drinking/Domestic ☐ Industrial ☐ Agricultural  Size of population using receiving surface water: ☑ ≤ 1,000 persons ☐ >1,000 and ≤ 5,000 persons ☐ >5,000 person  Available/nearest water source. ☑ Deep well ☐ Water district/LGU ☐ Surface water ☐ Others, specify — — —	<ul> <li>□ Implement rainwater harvesting and similar measures as an alternative source of water</li> <li>☑ Observe water conservation measures</li> <li>□ Others, specify</li> <li>—</li> </ul>	Regularly monitor for presence/absence of complaints  Regular coordination with concerned agencies  Regularly monitor for occurrences of water shortages  Others, specify  ————	Cost integrated in the construction/ operation cost

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
☐ Increased occurrence of flooding	Is the project site located in an area identified by MGB/PAG-ASA as flood prone?  ☑ Yes □ No	<ul> <li>□ Use appropriate design for project facilities</li> <li>□ Implement appropriate drainage system</li> <li>□ Regularly remove debris and other materials that may obstruct water flow</li> <li>□ Others, specify</li> </ul>	Regularly monitor for presence/absence of complaints  Regular coordination with concerned agencies  Regularly monitor for increased frequency of flooding  Others, specify	Cost integrated in the construction/operation cost
AIR / NOISE				

Possible Environmental/	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/	Cost of Mitigation/
Social Impacts	20.		Implementation	Monitoring
Air quality degradation	Distance to nearest community:  ✓ 0 to less than 0.5 km  □ 0.5 to 1 km  □ More than 1 km	<ul> <li>✓ Properly operate and maintain all emission sources (e.g. vehicles, generator, etc)</li> <li>☐ Install when applicable, the appropriate air pollution control device/s</li> <li>☐ Strictly enforce good housekeeping practices</li> <li>✓ Control vehicle speed to lessen suspension of road dust</li> <li>✓ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents</li> <li>☐ Use covered vehicles to deliver materials that may generate dust</li> <li>☐ Other, specify</li> </ul>	Regularly monitor for presence/absence of complaints  Regular (ocular) inspection of:  Absence of white or black smoke from vehicles, heavy equipment, generator, etc.  Presence of truck cover during deliveries	Cost integrated in the construction/ operation cost
✓ Nuisance due to noise generation	Distance to nearest community:  ✓ 0 to less than 0.5 km  □ 0.5 to 1 km  □ More than 1 km	<ul> <li>✓ Properly operate and maintain all noise sources (e.g. vehicles, generator, etc)</li> <li>☐ Install when applicable, the appropriate noise control device/s (e.g., mufflers, silencer, sound barriers, etc.)</li> <li>✓ Implement appropriate operating hours</li> <li>☐ Provide adequate buffer and/or planting of trees</li> <li>☐ Others, specify</li> </ul>	Regularly monitor for presence/absence of complaints  Regular monitoring of buffer zones	Cost integrated in the construction/ operation cost
PEOPLE				

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
<ul> <li>□ Displacement of residents in the project site and within its vicinity</li> <li>□ Displacement of Indigenous People</li> <li>☑ Enhanced employment and/or livelihood opportunities</li> <li>□ Reduced employment and/or livelihood opportunities</li> <li>□ Increased revenues for LGU</li> <li>□ Disruption/Competiti on in delivery of public services (e.g., education, peace and order, etc.)</li> <li>□ Enhanced delivery of public services (e.g., education, peace and order, etc.)</li> <li>☑ Increase in traffic volume and worsening of traffic flow</li> </ul>	Size of population of host barangay:  □ ≤ 1,000 persons □ >1,000 and ≤	□ Provide relocation/disturbance compensation packages □ Prioritize local residents for employment □ Promptly pay local taxes and other financial obligations □ Regular coordination with LGU □ Prior consultation & coordination to minimize disruption on daily domestic activities & respect for IP rights and cultural practices □ Ensure participation of IPs in consultations and dialogues □ Provide appropriate traffic/warning signs, lighting, etc □ Others, specify □ Others, specify	Regularly monitor for presence/absence of complaints  Regular coordination with LGU  Others, specify	Cost integrated in the construction/ operation cost
<ul><li>☐ Impacts on community health and safety</li><li>☐ Others, specify</li></ul>		<ul> <li>✓ Regular coordination with LGU</li> <li>✓ Provide appropriate warning signs, lighting and barricades, whenever practicable</li> <li>✓ Observe proper housekeeping</li> </ul>	Regularly monitor for presence/absence of complaints  Regular coordination with LGU	Cost integrated in the construction/ operation cost

Possible Environmental/ Social Impacts	Baseline Environment	Preventive/ Mitigating Measures	Monitoring Parameters/ Implementation	Cost of Mitigation/ Monitoring
		<ul> <li>✓ Provide on-site medical services for any emergency.</li> <li>✓ Participate in public awareness programs on health and safety</li> <li>✓ Implement appropriate safety programs for both community and workers</li> <li>Others, specify</li> </ul>	Regularly monitor submission of reports to concerned agency  Others, specify	



Attach design/plan/alignment of project (with dimensions and descriptions)

## SWORN STATEMENT OF ACCOUNTABILITY OF THE PROPONENT

This is to certify that all the information and commitments in this Initial Environmental Examination (IEE) Checklist Report\_are accurate and complete to the best of my knowledge.

By the authority vested in me by the <u>Provincial Local Government Unit of Oriental Mindoro</u> as <u>Provincial Governor</u>. I hereby commit to ensure implementation of all commitments, mitigating measures and monitoring requirements indicated in this IEE Checklist Report as well as the following:

- Conform to pertinent provisions of applicable environmental laws e.g., R.A. No. 6969 (*Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990*), R.A. No. 9003 (*Ecological Solid Waste Management Act of 2000*), R.A. No. 9275 (*Philippine Clean Water Act of 2004*), and R.A. No. 8749 (*Philippine Clean Air Act of 1999*).
- Abide and conform to LGU development plans and guidelines.
- Promptly pay local taxes and other financial obligations.
- Regularly submit reports to concerned agencies.

I hereby bind myself to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this IEE Checklist.

#### ALFONSO V. UMALI, IR.

Provincial Governor Provincial Government of Oriental Mindoro

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