**ROAD AND BRIDGE PROJECTS**

**INITIAL ENVIRONMENTAL EXAMINATION (IEE) CHECKLIST**
for

UPGRADING OF MANANGLE – CAIMA FARM TO MARKET ROAD
Project Name or Title

Below is the IEE Checklist Report for Road and Bridge Projects.
Please check applicable project category:

| ✓ | 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 (✔) the appropriate boxes □ or parenthesis ( ). Boxes with check marks(☑) 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:** Upgrading of Manangle – Caima Farm to Market Road

**Project Location:** Sipocot, Camarines Sur

**Road Width :** 4 meter

**Road/Bridge Length :** 19.329 kms

**Project Proponent:** Provincial Government of Camarines Sur

**Office Address:** Cadlan. Pili, Camarines Sur

**Contact Person:** Felipe Vargas

**Designation:** PPMIU Coordinator

**Contact Information**

**Telephone Number:** _____

**Fax Number:** _____

**Mobile Number:** _____

**E-mail Address:** _____

## I. PROJECT DESCRIPTION

**1.1 PROJECT LOCATION AND AREA:** Street Name, Barangay, and Municipality/City, Province

_____
_____
_____

See attached vicinity map/s and photographs of the project site including alignment and design.

Geographic coordinates of the project area (Preferably use WGS 84 datum, otherwise specify datum used).

| Perimeter/Boundary points (based on OCT/TCT/etc) | Longitude | Latitude |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**1.2 PROJECT COMPONENTS**

| Facilities | Length / Area (meters) | Specification/Description/Remarks |
|---|---|---|
| 1. Road | 19,329 | 15,747m x 4m PCCP, 1,274m x 2m PCCP and 1,889m x 1m PCCP |
| 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) | 44 lines | By 7m x 0.910m dia. RCPC |
| 6. Associated facilities (i.e. Guardrails, Traffic signs, etc.) | 72 units | Road warning signs (triangular) |
| 7. Solid waste management facility | | |
| 8. Others, please specify _____ _____ | | |

*(Use additional sheets if needed)*

**1.3 UTILITIES/REQUIREMENTS** (Construction Phase)**:**

| Utilities | Source | Estimated Demand/Consumption |
|---|---|---|
| Power/Electricity **(Total)** | Casureco 1 | 20 KWh |
| Power/Electricity **(From Renewable Energy Sources)** | | KWh |
| Water **(Total)** (Fill-up table below if water is not obtained from the local water utility) | | $m^3$/day |
| Water **(Rainwater Collection System)** | | $m^3$/day |

Water Source

[ ] ground water [ ] well [ ] spring [ ] others: _____

[√ ] Surface water [√ ] river [ ] lake [ ] others: _____

Location of water source: Manangle, Sipocot, Camarines Sur

*(Sitio/Zone, Barangay, Municipality/City, Province, Region)*

**Energy/Water Efficiency**

| Utilities | Estimated Savings | Proposed Efficiency/Conservation Measures |
|---|---|---|
| Power/Electricity | 5 KWh | Limit use of air-conditioning unit and halogen lights during night time |
| Water | $m^3$/day | |

**1.4 MANPOWER**

**a. Construction Phase**

| Manpower Requirement | Expertise/Skills | Total |
|---|---|---|
| **Skilled** | **Foreman/Carpenter/Mason/Equipment and Mechanical Operators** | **105** |
| **Unskilled** | **Laborers/Survey Aide/ Equipment Operator Helpers** | **185** |
| | | |
| | | |

**1.5 INDICATIVE PROJECT COST**

Project Cost (PhP): 131,282,013

## 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):<br>☐ Residential<br>☐ Commercial/ Institutional<br>☐ Industrial<br>☐ Agricultural/ Recreational<br>☐ Protected Areas<br>☐ Others _____<br><br>Actual land uses w/in 1km radius:<br>☐ Residential<br>☐ Commercial/ Institutional<br>☐ Industrial<br>☐ Agricultural/ Recreational<br>☐ Protected Areas<br>☐ Others _____ | ☑ See attached proof of compatibility with land use | | |
| ☐ Disturbance to wildlife due to vegetation clearing | Existing vegetation in the area:<br>☐ Forestland<br>☐ Marshland<br>☐ Grassland<br>☐ Mangrove | ☑ Compliance with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit<br>☑ Limit land clearing as much as possible<br>☑ Provide temporary fencing to<br>☑ vegetation that will be retained | ☑ Annual inspection of area replanted/ revegetated | ☑ Cost integrated in the construction /operation cost |

| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| | ☐ Wetland<br>Others, specify<br>_____ | ☑ Promote restoration of damaged or destroyed vegetation where possible (e.g., road side tree planting); | | |
| ☐ Change in surface landform/ topography/ terrain/slope<br><br>☐ Soil Erosion | Slope:<br>☐ flat (0-3%)<br>☐ gently sloping to rolling (3-18%)<br>☐ steep (>18%)<br><br>Is the project site located in an area identified by MGB/PAGASA/PHIVOLCS as hazard prone?<br>☐ Yes<br>☐ No | ☐ Provide erosion control and slope protection measures<br>☐ Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils<br>☐ Construction during dry season<br>☐ Stabilization of embankment with grasses ,**trees** or other soil cover **/construction of rip-rap**<br>☐<br>☐ Others, specify<br>_____<br><br>☐ Compliance with the DENR Administrative Order No. **2003-30** and DENR Administrative Order No. 2000-28, Implementing Guidelines on Engineering Geological and Geo-hazard Assessment (EGGA). | ☐ Regular inspection of slope protection measures in erosion-prone areas<br>☐ Regular inspection for new eroded areas near the site<br>☐ Others (Pls. specify):<br>_____ | ☐ Slope/ Erosion Control Cost: _____<br>☐ Others, specify<br>_____<br>_____ |
| ☑ Soil/Land contamination due to improper solid waste disposal | Existing soil type in the area:<br>☐ sandy<br>☐ clay<br>☐ sandy-loam<br>☐ Others, specify<br>_____ | ☑ Implementation of the Ecological Solid Waste Management Plan (ESWMP);<br>☐ Set-up temporary fence around the construction area<br>☑ Implement re-use and recycling of waste materials<br>☑ Implement proper segregation, collection and disposal of domestic wastes in designated areas | ☑ Daily inspection of waste/recycling bins for segregation<br>☑ Daily inspection for presence of mixed garbage in the facility<br>☑ Weekly inspection of waste accumulated<br>☐ Others, specify<br>_____ | ☑ Cost integrated in the construction /operation cost |

| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| | | ☐ Implement proper collection, labeling and storage of hazardous waste<br>☐ Provide receptacles / bins for solid wastes<br>☐ Coordinate with the municipal / city waste collectors<br>☐ Engage third party company for waste collection<br>☐ Others, specify:<br>_____ | _____ | |
| ☐ Encroachment into protected areas or ecologically-sensitive areas | Is the project area near protected areas or ecologically-sensitive areas?<br>☐ Yes<br>☐ No | ☑ Obtain appropriate permits/clearances from concerned agencies<br>☐ Provide adequate buffer<br>☐ Others, specify:<br>_____ | ☑ Regular coordination with concerned agencies | ☑ Cost integrated in the construction/ operation cost |
| ☐ Impairment of visual aesthetics<br>☐ Devaluation of land values | Presence of visually significant landforms/landscape/structures?<br>☐ Yes<br>☐ No | ☐ Implement landscaping and other beautification measures<br>☐ Provide adequate buffer<br>☐ Compensate adjacent property owners<br>☐ Others, specify:<br>_____ | ☐ Regular inspection of landscaping and other beautification activities<br>☐ Regular monitoring of buffer zones<br>☑ Regularly monitor presence/absence of complaints from adjacent property owners | ☑ Cost integrated in the construction/ operation cost |
| **WATER** | | | | |

| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| ☐ Increased siltation due to project activities<br>☐ Water quality degradation<br>☐ Others, specify<br>_____<br>_____ | Specify nearest/receiving water body:<br>_____<br>____<br><br>Distance to nearest/receiving water body:<br>☐ 0 to less than 0.5 km<br>☐ 0.5 to 1 km<br>☐ More than 1 km<br><br>If nearest/receiving water body is fresh water, specify classification:<br>☐ AA<br>☐ A<br>☐ B<br>☐ C<br>☐ D<br><br>If nearest/receiving water body is coastal or marine water, specify classification:<br>☐ SA<br>☐ SB<br>☐ SC<br>☐ SD | ☑ Set-up proper and adequate sanitary facilities<br>☐ Strictly require the contractor and its workers to observe proper waste disposal and proper sanitation<br>☑ Strictly observe proper waste handling and disposal<br>☐ Set up silt trap**(Gabions, Fascines)**/settling ponds to minimize downstream siltation<br>☐ Others (Pls. specify): _____ | Regular (ocular) inspection of:<br>☐ Drainage / canal systems<br>☐ Sanitation facilities<br><br>Regular (ocular) inspection of water body for:<br>☐ Turbidity and/or silted condition<br>☐ Floating wastes or debris | ☑ Cost integrated in the construction/ operation cost |

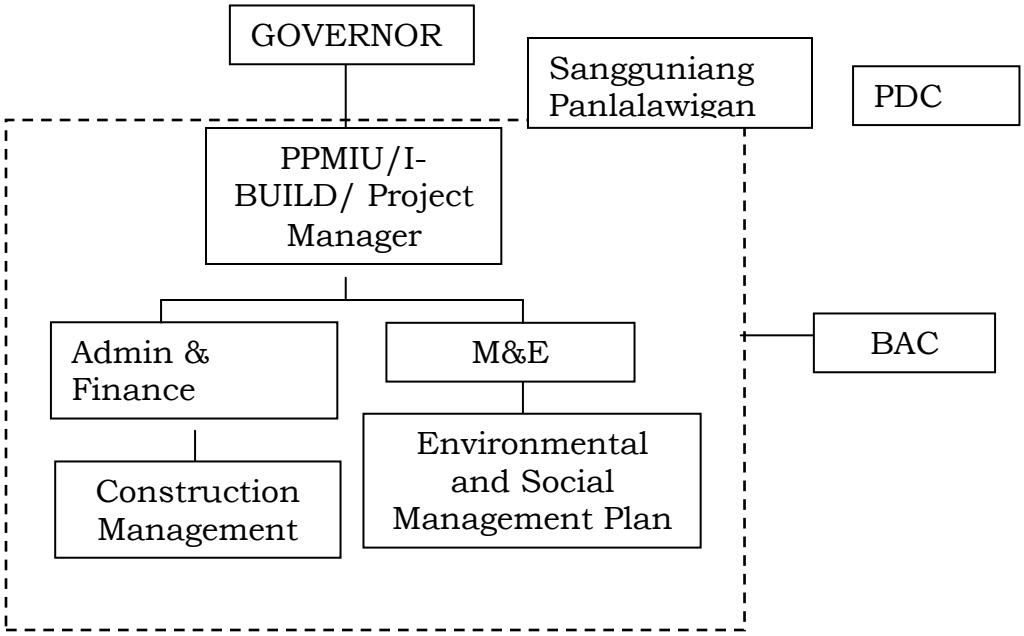
| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| | Current Water Use:<br>☐ Fishery<br>☐ Tourist Zone / Park<br>☐ Recreational<br>☐ Industrial<br>☐ Agricultural | | | |
| | Distance of project area to the nearest well used:<br>☐ 0 to less than 0.5 km<br>☐ 0.5 to 1 km<br>☐ More than 1 km<br><br>Use of the nearest well:<br>☐ Drinking/Domestic<br>☐ Industrial<br>☐ Agricultural | | | |
| ☐ Competition in water use<br>☐ Depletion of water resources | Size of population using receiving surface water:<br>☐ ≤ 1,000 persons<br>☐ >1,000 and ≤ 5,000persons<br>☐ >5,000person<br><br>Available/nearest water source.<br>☐ Deepwell<br>☐ Water district/LGU<br>☐ Surface water<br>☐ Others, specify<br>_____<br>_ | ☐ Implement rainwater harvesting and similar measures as an alternative source of water<br>☑ Observe water conservation measures<br>☐ Others, specify<br>_____ | ☑ Regularly monitor for presence/absence of complaints<br>☑ Regular coordination with concerned agencies<br>☑ Regularly monitor for occurrences of water shortages<br>☐ Others, specify<br>_____ | ☑ 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/PAGASA as flood prone?<br>☐ Yes<br>☐ No | ☐ Use appropriate design for project facilities<br>☐ Implement appropriate drainage system<br>☐ Regularly remove debris and other materials that may obstruct water flow<br>☐ Others, specify:<br>_____ | ☑ Regularly monitor for presence/absence of complaints<br>☑ Regular coordination with concerned agencies<br>☑ Regularly monitor for increased frequency of flooding<br>☐ Others, specify<br>_____ | ☑ Cost integrated in the construction/ operation cost |
| **AIR / NOISE** | | | | |
| ☐ Air quality degradation | Distance to nearest community:<br>☐ 0 to less than 0.5 km<br>☐ 0.5 to 1 km<br>☐ More than 1 km | ☐ Properly operate and maintain all emission sources (e.g. vehicles, generator, etc)<br>☐ Install when applicable, the appropriate air pollution control device/s<br>☐ Strictly enforce good housekeeping practices<br>☐ Control vehicle speed to lessen suspension of road dust<br>☐ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents<br>☐ Use covered vehicles to deliver materials that may generate dust<br>☐ Other, specify<br>_____ | ☑ Regularly monitor for presence/absence of complaints<br>Regular (ocular) inspection of:<br>☐ Absence of white or black smoke from vehicles, heavy equipment, generator, etc.<br>☐ Presence of truck cover during deliveries | ☑ Cost integrated in the construction/ operation cost |

| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| ☐ Nuisance due to noise generation | Distance to nearest community:<br>☐ 0 to less than 0.5 km<br>☐ 0.5 to 1 km<br>☐ More than 1 km | ☐ Properly operate and maintain all noise sources (e.g. vehicles, generator, etc)<br>☐ Install when applicable, the appropriate noise control device/s (e.g., mufflers, silencer, sound barriers, etc.)<br>☐ Implement appropriate operating hours<br>☐ Provide adequate buffer and/or planting of trees<br>☐ Others, specify<br>_____ | ☑ Regularly monitor for presence/absence of complaints<br>☐ Regular monitoring of buffer zones | ☑ Cost integrated in the construction/ operation cost |
| **PEOPLE** | | | | |
| ☐ Displacement of residents in the project site and within its vicinity<br>☐ Displacement of Indigenous People<br>☐ Enhanced employment and/or livelihood opportunities<br>☐ Reduced employment and/or livelihood opportunities<br>☐ Increased revenues for LGU<br>☐ Disruption/Competition in delivery of public services (e.g., education, peace and order, | Size of population of host barangay:<br>☐ ≤ 1,000 persons<br>☐ >1,000 and ≤ 5,000persons<br>☐ >5,000person<br><br>Classification of host barangay:<br>☐ Urban<br>☐ Rural<br><br>Available services within/near the host barangay:<br>☐ Schools (e.g. elementary, high school, college)<br>☐ Health facilities (e.g., clinics, hospitals, etc.)<br>☐ Peace and order (e.g., police outpost, brgy. | ☐ Provide relocation/disturbance compensation packages<br>☑ Prioritize local residents for employment<br>☑ Promptly pay local taxes and other financial obligations<br>☑ Regular coordination with LGU<br>☐ Prior consultation & coordination to minimize disruption on daily domestic activities & respect for IP rights and cultural practices<br>☐ Ensure participation of IPs in consultations and dialogues<br>☐ Provide appropriate traffic/warning signs, lighting, etc<br>☐ Others: specify<br>_____ | ☑ Regularly monitor for presence/absence of complaints<br>☑ Regular coordination with LGU<br>☐ Others, specify<br>_____ | ☑ Cost integrated in the construction/ operation cost |

| Possible Environmental/ Social Impacts | Baseline Environment | Preventive/ Mitigating Measures | Monitoring Parameters/ Implementation | Cost of Mitigation/ Monitoring |
|---|---|---|---|---|
| etc.)<br>☐ Enhanced delivery of public services (e.g., education, peace and order, etc.)<br>☐ Increase in traffic volume and worsening of traffic flow | Tanod, etc.)<br>☐ Recreation and sports facilities<br>☐ Others, specify: _____ | | | |
| ☐ Impacts on community health and safety<br>☐ Others, specify _____ | | ☑ Regular coordination with LGU<br>☑ Provide appropriate warning signs, lighting and barricades, whenever practicable<br>☑ Observe proper housekeeping<br>☑ Provide on-site medical services for any emergency.<br>☑ Participate in public awareness programs on health and safety<br>☑ Implement appropriate safety programs for both community and workers<br>☐ Others, specify _____ | ☑ Regularly monitor for presence/absence of complaints<br>☑ Regular coordination with LGU<br>☑ Regularly monitor submission of reports to concerned agency<br>☐ Others, specify _____ | ☑ Cost integrated in the construction/ operation cost |

## III. INSTITUTIONAL PLAN FOR EMP IMPLEMENTATION



**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 **PROVINCIAL GOVERNMENT OF CAMARINES SUR** as **GOVERNOR** . 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 with 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 with 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.

**MIGUEL LUIS R. VILLAFUERTE**
Governor
Provincial Government of Camarines Sur

SUBSCRIBED AND SWORN TO before me this _____ day of _____ 201__, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____