ANNEX E-1

Department of Agriculture
Philippine Rural Development Program

TEMPLATE FOR RURAL/FARM-TO-MARKET ROADS

.

Name of Road: Rehabilitation of Poblacion Datu Balong-Purok Mamalian FMR
Location: Brgy. Poblacion Datu Balong a nd Purok Mamalian
Implementing LGU: Province of Davao del Norte
Estimated number of beneficiaries: 1,469 household.
New or Rehab: Concreting
Estimated Total Cost: P 37,125,000.00

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. 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 [ ] No measures required	During Sub grade preparations (BAR CHART/S-Curve)	POW/DED	Contractor
2. Potential contamination of surface and groundwater with oil/grease	[√] Waste oil and grease from equipment could contaminate surface water [ ] There will be no or insignificant amount of waste oil/grease	[√] Proper handling and disposal of waste oil and grease	Before Start of the SP	Contract	Contractor
3. Potential contamination with human waste	[√] Construction workers would be temporarily housed in a base camp [√] Workers would be mostly locals and are expected to go home to their respective houses after works	[√] Set up adequate latrine/toilet facility at the base camp	Before start of the SP	Contract	Contractor

4. Potential disruption of traffic flow	[√] 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 [ ] The construction will not affect daily movement of residents and farmers	[√] 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; [√] Undertake regular maintenance measures on the passable portions of the roads [ ] No measures needed	During the implement ations of SP	Contract	Contractor
5. 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 [√] Access road and/or construction/ rehabilitation does not pass through any 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 [ ] No measures needed	During sub grade and aggregate sub base course preparation (BAR CHART/S-Curve)	POW /DED	contractor
6. Landslide/ erosion of exposed road sides resulting in sedimentation of waterways	[ ] The road will traverse a mountainous area necessitating deep cuts on mountainsides, particularly between station: 0+590-0+700, 1+040-1+210, 1+040-1+150, 1+310-1+390,1+430-1550 [√] 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 through a relatively benign terrain, cuts will be minimal [] The rehabilitation work does not involve additional road cuts	[√] Include slope protection works at the following stations: **Slope Protection Stations:** 0+590-0+700, 1+040-1+210, 1+040-1+150, 1+310-1+390,1+430-1550 [ ] Bioengineering with geomat and cover crop [ ] Fast growing shrub species [√ Riprap [ ] Gabions [ ] Terracing	After constructio n of the road segment (BAR CHART/S-Curve)	DED/POW	contractor

		[ ] Concrete protection wall [√] Others **Guard railings** **Left Side**: 0+060 to 0+311 0+350 to 0+518 0+750 to 1+242 1+280 to 1+990 2+620 to 2+848 3+000 to 3+287 3+358 to 3+460 **Right Side:** 0+290 to 0+330 0+570 to 0+709 0+750 to 0+809 0+900 to 1+020 1+030 to 1+149 1+280 to 1+547 2+140 to 2+490 2+540 to 2+820			
7. Inadequate drainage resulting in flooding or ponding	[√] The road will block runoff, resulting in flooding on one side of the road during rainy days. [ ] Drainage issues unlikely	[√] Installation of cross drain between stations: **RCPC 0+662,3+170, 0+607, 3+041, 1+810,2+040**	(BAR CHART/S-Curve)	DED/POW	Contractor
8. 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 [√] Farmers in the service area have not been trained on IPM	[√] DA to continue to support IPM program [ ] LGU to Coordinate with DA on IPM training		Capacity Building Plan O&M Plan; Capacity Building Plan	DA PLGU/LGU /BLGU
9. Potential acceleration of denudation of the upland/hilly areas due to intensification of crop production	[√] 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. [ ] The road connects only lowland farms to the market	[√] DA to coordinate with LGU for the introduction of sustainable upland farming systems in the area [ ] No measure required		O&M Plan; Capacity Building Plan	DA PLGU/LGU /BLGU

10. Potential increased 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. [√] The proposed road does not improve access to a public forest	[ ] Coordinate with DENR for the enactment of ordinance deputizing the local community to enforce forestry laws [√] No measure required			
11. Local employment	[√] Construction will provide local employment opportunities	[√] Hiring priority shall be given to qualified local residents; Implement RI Manual on local hiring	During the Implement ation of the SP	Contract	Contractor and BLGU
	[ ] Construction does not provide any local employment opportunities	[ ] No measures required			
11. Conversion of Land-use/natural habitat due to quarry	[ ] the proposed quarry site is within a private land and need to convert existing land-use [x] Quarry site is existing and proven as a good source of quarry materials	[x] Quarry materials will be procured to existing quarry sites	During the Implement ation of the SP		Contractor
12. Potential damage to existing road due to hauling of quarry materials	[x] source of quarry materials is <u>10</u> km. (Item 201 and Item 200) Transportation of quarry materials from source to FMR will not cause damage to existing FMR	[x] regular maintenance and repair of existing road	During the Implement ation of the SP		Contractor