A. SOCIAL ASSESSMENT

6.1 Project Beneficiaries

The implementation of the proposed rehabilitation of Dualing – San Mateo - Sta. Cruz FMR would directly benefit 453 households of influenced 3 barangays, most of them are farmers.

Consultations were made on affected beneficiaries of barangay San Mateo, Dualing and Sta. Cruz presenting the various social issues whenever the project will be approved through such as the effects on landholdings, structures, crops and fruit trees that may eventually be compensated to give way for the construction of the farm to market roads.

The beneficiaries expressed their intention of donating the ROW, portion of land to be utilized as farm to market road. Further, they mentioned that the benefit of the project is advantageous for them having an accessible all weather farm to market road.

Attached are the attendance sheet and minutes of meetings during the consultation conducted on January 21, 2011 and December 2, 2013. During the consultation, there were 8 women and 11 men who were consulted on their concerns and inputs on the subproject.

During the consultations women are concerned on the design of the road if it's concrete to have a lasting good road condition or a graveled road.

6.2 Indigenous Cultural Community/Indigenous Peoples (ICC/IP)

There are no Indigenous People (IPs) present in barangay San Mateo, Sta. Cruz and Dualing and the site of proposed project is not within the ancestral domain of the Indigenous People.

6.3 Site and Right-of-Way acquisition

A 12 meter wide is allocated to be utilized by the project especially on the sloping sections of the road. There are 9 land owners affected by the widening of road sections. Private owners would donate the land for the subproject. While the remaining length of road sections are considered as homestead road.

Deed of Donations where signed between the owner of the land as donor and the local government of Aleosan as donee with annotation of the property at the Registry of Deeds. The Office of the Municipal Assessor was copy furnished of the deed of donations for consideration during tax assessment in order to reduce tax paid of the land owners. This is one of the compensation the land owner could avail including seedlings in exchanged to those trees that would be affected during excavation.

6.4 Damage to standing crops, houses and/or properties

The land is located in an agricultural area planted with palay, corn, rubber, mango, bananas and other legumes alongside. There are sections of the farm to market road that plants and trees could be affected during the widening of existing road from 4 meter wide to 7 meters wide especially the trees planted such as coconut, mango and Ipil-ipil. This is because lot owners utilize the vacant land while not in use for the road. Most of the affected persons are farmers. Since, portions of land are already donated, lot owners allowed the road widening.

6.5 Physical displacement of persons

No relocation of houses will happened at the proposed project site as per result of PAP Survey.

6.6 Economic displacement of persons

The proposed project will not result in the loss of livelihood or reduced access of families to their traditional livelihood sources.

B. ENVIRONMENTAL ASSESSMENT

7.1 Natural habitat

The proposed rehabilitation of 2.48 kilometer road project traversed an agricultural land planted with cash crops such as rice, corn and legumes. High value commercial crops are also present like rubber, coconut, banana and mango. There are areas which needs drainage canals because of existing water catchments along the road but no creeks and river that could be passed through the 2.48 kilometer farm to market road.

7.2 Physical Cultural Resources

There are no significant structures, monuments or Physical Cultural Resources on site that will be affected by the subproject.

7.3 Terrain, Soil Types and Rainfall

The project site locate along moderately slope or rolling terrain with maximum slope of 10% in which concreting was necessary to avoid highly cost maintenance. Soil is clay type to sandy loam. Though, erosion is not rampant in the area but siltation due to frequent rainy days and cutting of trees.

7.4 Drainage Situations and Flooding Potential

The proposed project has 15 sections of RCPC to establish the drainage canal in the lower sections to avoid clogging of water that will result to the easily deterioration of road. The area is not a flood prone area because of its hilly terrain and no water bodies present along side or passing through.

7.5 Impacts during Construction

Some adverse impacts of this activity would be generated during construction phases of implementation. Site clearing will result in loss in some vegetative cover in the site, though wildlife is not present in the area. Noise levels would increase during these phases of project implementation, as heavy equipment will be utilized in the earth-moving activities. These impacts however, are temporary in nature and insignificant in magnitude.

(a) Temporary erosion and sediment control

Avoiding the occurrence of erosion is one of the environmental management concerned as mentioned in the EMP. Minimize cutting of slopes. There are no streams and lakes present in the area.

(b) Construction noise mitigation

There are houses near the project site and small business present. There are no activities that would entail loud noise. To prevent loud noise, proper maintenance of the equipment should be used by the contracting firm. The major sources of noise considered during construction activities would be during excavation, loading, transportation of materials, and operation of construction equipment. These impacts will be mitigated by careful planning of machinery operations, use of low noise equipments and scheduling of operations only during the daytime to reduce their impacts to receptors. However, there are no sensitive receptors such as hospital or school near the Project site.

(c) Proper handling of construction wastes

The contractor will be oriented on the proper waste disposal especially during the construction of concrete pavements. Some of the cement bags could be recycled.

(d) Safety

There are no major health and safety hazard that the project implementation could cause. Personal protective equipments (PPE), such as helmets, gloves, boots, etc. are provided for the workers on construction site. Proper signboards and appropriate information to the local people about the construction activities are provided. Workers operating equipments on construction site are skilled.

Table No. 25
Environmental Management Plan

Issue (Potential Impact)	Assessment	Mitigation Measure	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*
1. Temporary increase in sedimentation during construction	[/] Topography of the road alignment necessitate massive earthmoving and cutting of clayey or loose topsoils [ ] 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	DED/POW; Contract

Issue (Potential Impact)	Assessment	Mitigation Measure	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*
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	Contract
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	Contract
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	Contract
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	Contract
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 ____ and ____, etc (check DED for deep cuts)… [ ] The exposed slopes will likely consist of highly erodible loose materials [ ] The cut slopes will be hard materials that would resist	[ ] Include slope protection works at the following stations: Lined canal at 0+000 to 0+105 both sides slope protection works at station 0 + 230 to 0+320a, 0+320b to 0+470, 2+170 to 2+210 and 2+310 to 2 + 340. (Specify the type/s of slope protection to be applied at	DED/POW Or (if budget does not permit) LGU Commitment Letter

Issue (Potential Impact)	Assessment	Mitigation Measure	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*
	erosion [/] The road passes through a relatively benign terrain, cuts will be minimal [ ] The rehabilitation work does not involve additional road cuts	each section- Consult with the Municipal Engineer: [ ] Bioengineering with geomat and cover crop [ ] Fast growing shrub species [/] Riprap [ ] Gabions [ ] Terracing [/] Concrete protection wall [ ] Others _____)	
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 station 0+108, 0+180, 0+292, 0+340, 0+400, 0+480, 0+740, 0+920, 1+080, 1+200, 1+460, 1+680, 1+970, 2+320, 2+480	DED
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
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
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 increase 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	O&M Plan; Capacity Building Plan
10. Local employment	[/] Construction will provide local employment opportunities	[/] Hiring priority shall be given to qualified local residents; Implement RI Manual on local hiring	Contract

Issue (Potential Impact)	Assessment	Mitigation Measure	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*
	[ ] Construction does not provide any local employment opportunities	[ ] No measures required	

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