LIVESTOCK ANIMAL INDUSTRY PROJECTS

II. ENVIRONMENTAL IMPACTS AND CLIMATE CHANGE RISK MANAGEMENT PLAN

Possible Environmental/Social	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Impacts		☑ Cost of preventive/mitigating as well as monitoring in	ntegrated in the construction /operation cost	
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 Others, specify	 ✓ See attached proof of compatibility with land use ✓ Limit project activities to what is compatible to the land use ✓ Others, specify 		

Project Name: _____

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring in	Monitoring Parameters/ Implementation	Remarks
□ Land tenure / compatibility issue	Identify Land tenure / compatibility issues: CARP CADC/ CADT/ CALC/ CALT ROW Informal settlers Ecologically sensitive or protected area Others, specify	 □ Obtain appropriate clearances/ permits from concerned agencies □ Provide relocation/disturbance compensation packages □ Ensure participation of IPs in consultations and dialogues □ Provide adequate buffer □ Others, specify 	Regularly monitor presence/absence of complaints Regular coordination with LGU or appropriate agencies Others, specify	
 □ Disturbance to wildlife due to vegetation clearing □ Pest/disease infestation 	Existing vegetation in the area: Forestland Marshland Grassland Mangrove Wetland Others, specify	 ✓ Comply with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit ✓ Limit land clearing as much as possible ✓ Provide temporary fencing for vegetation that will be retained ✓ Employ Integrated Pest Management System ✓ Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) 	 ✓ Annual inspection of area replanted/re-vegetated ✓ Others, specify 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Gost of preventive/mitigating as well as monitoring in	Monitoring Parameters/ Implementation	Remarks
☐ 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/PAGASA/PHIVOLCS as hazard prone? ☐ Yes ☐ No	Considering the natural hazards and climate projections in the area Provide appropriate erosion control and slope protection measures Employ appropriate soil erosion control and slope protection measures (e.g. contour farming, hedgerow planting, etc.) Stabilization of embankment with grasses or other soil cover Others, specify	Regular inspection of slope protection measures in erosion-prone areas Regular inspection for new eroded areas near the site Others, specify	☐ Slope/ Erosion Control Cost: ☐ Others, specify
Building of Structure and Improper solid waste disposal leading to Impairment of visual aesthetics Devaluation of land values	Solid Waste Management Scheme in the area: SLF MRF Composting Regular Collection of Solid Wastes Presence of visually significant landforms/landscape/structures? Yes No	 ✓ Implement recovery re-use and recycling of waste materials ✓ Provide receptacles / bins for solid wastes ☐ Composting of Organic Wastes ☐ Coordinate with the municipal / city waste collectors ☐ Implement landscaping and other beautification measures ☐ Provide adequate buffer ☐ Compensate adjacent property owners ☐ Others, please specify 	 ✓ Daily inspection for presence of garbage in the facility ✓ Weekly inspection of waste accumulated ☐ Regular inspection of landscaping and other beautification activities ☐ Regular monitoring of buffer zones ☐ Regularly monitor presence/absence of complaints from adjacent property owners ☐ Others, specify 	

Possible Environmental/Social	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Impacts		☑ Cost of preventive/mitigating as well as monitoring in	ntegrated in the construction /operation cost	
WATER Increased siltation due	Specify nearest/receiving water	✓ Set-up proper and adequate sanitary	Regular (ocular) inspection of:	
 □ Increased silitation due to project activities □ Water quality degradation □ Others, specify 	Distance to nearest/receiving water body: O to less than 0.5 km O.5 to 1 km More than 1 km Classification of nearest water body: Freshwater Marine/ coastal water AA SA A SB B SC C SD D	Set-up proper and adequate sanitary facilities Strictly require the contractor and its workers to observe proper waste disposal and proper sanitation Strictly observe proper waste handling and disposal Provide wastewater treatment facility (e.g., septic tank, oil and water separator, etc.) Provide biogas generator or similar waste treatment measures Set up silt trap/settling ponds to minimize downstream siltation Others, specify	□ Drainage / canal systems □ Water treatment facility (i.e., grease trap, septic tank, etc.) Regular monitoring of the following: □ Parameter Frequency □ pH □ Annual □ Quarterly □ Monthly □ TSS □ Annual □ Quarterly □ Monthly □ BOD □ Annual □ Quarterly □ Monthly □ Semi-annual □ Quarterly □ Monthly □ Color □ Annual □ Quarterly □ Monthly	

Possible Environmental/Social	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
Impacts		$\ensuremath{\square}$ Cost of preventive/mitigating as well as monitoring in	ntegrated in the construction /operation cost	
☐ 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: O to less than 0.5 km O.5 to 1 km More than 1 km Use of the nearest well: Industrial Agricultural Size of population using receiving surface water: Size of population using receiving surface water: Size of population using receiving surface water: Fishery Tourist Zone / Park Recreational Industrial Agricultural	 Implement rainwater harvesting and similar measures as an alternative source of water Observe water conservation measures; Carefully select project site to avoid disruption of traditional water uses Obtain Water Permit from NWRB Improve efficiency of water supply and distribution system Others, specify 	Regular monitoring for presence/absence of complaints Regular coordination with concerned agencies Regular monitoring for occurrences of water shortages Others, specify	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring in	Monitoring Parameters/ Implementation	Remarks
☐ Increased occurrence of flooding	□ Deep well □ Water district/LGU □ Surface water □ Others, specify Is the project site located in an area identified by MGB/PAGASA as flood prone? □ Yes □ No	 ☐ Use appropriate design for project facilities ☐ Implement appropriate drainage system ☐ Use appropriate technology (e.g., raised hand-pumps) to protect drinking water from flood contamination ☐ Others, specify 	Regular monitoring for presence/absence of complaints Regular coordination with concerned agencies Regular monitoring for increased frequency of flooding Others, specify	
AIR / NOISE				
 □ Nuisance due to generation of obnoxious/unpleasant odor □ Air quality degradation □ 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 Is the wind direction blowing	 □ Properly operate and maintain all emission sources (e.g. vehicles, generator, etc) □ Strictly enforce good housekeeping practices □ Control vehicle speed to lessen suspension of road dust 	Regular monitoring for presence/absence of complaints Regular (ocular) inspection of: Absence of white or black smoke from vehicles, generator, etc.	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring in	Monitoring Parameters/ Implementation	Remarks
	towards the nearest community most of the year? Yes No	 □ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents □ Use covered vehicles to deliver materials that may generate dust □ Regular clean-up of animal houses □ Use environment-friendly deodorizer or odor masking substances □ Use sprays with natural / microbial disinfectants □ Provide adequate buffer and/or planting of trees □ Others, specify 	☐ Presence of truck cover during deliveries	
PEOPLE				
 □ Displacement of residents including indigenous people in the project site and within its vicinity □ Enhanced employment and/or livelihood opportunities □ Reduced employment and/or livelihood opportunities □ Increased revenues for 	Size of population of host barangay:	 □ Provide relocation/disturbance compensation packages ☑ Prioritize local residents for employment ☑ Promptly pay local taxes and other financial obligations ☑ Regular coordination with LGU □ Conduct prior consultation and coordination to minimize disruption of daily domestic activities and to ensure respect for IP rights and cultural practices 	 ✓ Regular monitoring for presence/absence of complaints ✓ Regular coordination with LGU ☐ Others, specify 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring in	Monitoring Parameters/ Implementation	Remarks
LGU Disruption/Competition in delivery of public services (e.g., education, peace and order, etc.) Enhanced delivery of public services (e.g., education, peace and order, etc.) Increase in traffic volume and worsening of traffic flow	Classification of host barangay: Urban Rural Employment/Livelihood Opportunity Rate in the host Municipality: High Low Description:	 □ Ensure participation of IPs in consultations and dialogues □ Provide appropriate traffic/warning signs, lighting, etc □ Others, specify 	legialed in the construction /operation cost	
	Available services within/near the host barangay: Schools (e.g., elementary, high school, college) Health facilities (e.g., clinics, hospitals, etc.) Peace and order (e.g., police outpost, Brgy. Tanod, etc.) Recreation and sports facilities Others, specify			

Proje	ect Name:	