NON-FOOD MANUFACTURING PLANT PROJECTS

	PACT AND MANAGEMENT PLAN		<u> </u>	_
Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as we /operation cost	ell as monitoring integrated in the construction	
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 	Actual land uses w/in 1km radius: Residential Commercial/ Institutional Industrial Agricultural/ Recreational Protected Areas Others, specify	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	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	Cost of preventive/mitigating as we /operation cost Obtain the following clearances/ permits from concerned agencies: Resettlement Plan prepared Provide relocation/disturbance compensation packages Ensure participation of IPs in consultations and dialogues MOA prepared/signed 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	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 ✓ Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) ✓ Others, specify 	 ✓ Annual inspection of area replanted/ re-vegetated ✓ Others, specify 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Monitoring Parameters/ Implementation Cost of preventive/mitigating as well as monitoring integrated in the construction		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: Employ appropriate soil erosion control and slope protection measures (e.g. contour farming, hedgerow planting, etc.) considering the natural hazards and climate projections in the area 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 	
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	 ✓ 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 	 ✓ Daily inspection of waste handling including segregation in waste/recycling bins ✓ Weekly inspection of waste accumulation and disposal ☐ Regular inspection of landscaping and other beautification activities ☐ Regular monitoring of buffer zones 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Cost of preventive/mitigating as we /operation cost	Monitoring Parameters/ Implementation ell as monitoring integrated in the construction	Remarks
	Presence of visually significant landforms/landscape/structures? Yes No	 ☐ Implement landscaping and other beautification measures ☐ Provide adequate buffer ☐ Compensate adjacent property owners ☐ Others, please specify 	Regular monitoring for presence/absence of complaints from adjacent property owners Others, specify	
Soil/Land contamination due to materials (including fuel) leakage Depletion of soil nutrient content/soil productivity/Change in acidity/alkalinity of soil	Existing soil/land type in the area: sandy clay sandy-loam concrete/cement Others, specify	 □ Secondary containment (pls. specify) : □ Engage third party company for waste collection □ Others, specify 	 □ Regular inspection for leakage of materials that can cause land/soil contamination. □ Monitoring of soil physical and chemical properties 	
	Soil acidity/alkalinity acidic basic			

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as we /operation cost		
	Soil test/analysis (secondary data) N = P = K = Trace metals/micro nutrients =			
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 Classification of nearest/receiving water body:	 □ Provide wastewater treatment facility (e.g., septic tank, oil and water separator, etc.) □ Provide ring canals around fuelling tanks/ motor pool/maintenance areas ☑ 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 □ Set up silt trap/stilling ponds to minimize downstream siltation □ Others, specify 	Regular (ocular) inspection of water body for: Turbidity and/or silted condition Floating wastes or debris Regular monitoring of ambient water quality: Parameter Frequency PH Annual Semi-annual Quarterly Monthly	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as we /operation cost	ell as monitoring integrated in the construction	
	□ Freshwater □ Marine/coastal water □ AA □ SA □ A □ SB □ B □ SC □ C □ SD □ D Current Water Use: □ Fishery □ Tourist Zone / Park □ Recreational □ Industrial □ Agricultural Size of population using receiving surface water: □ ≤ 1,000 persons □ >1,000 and ≤ 5,000 persons □ >5,000 persons □ >5,000 persons □ listance of project area to the nearest well used: □ 0 to less than 0.5 km □ 0.5 to 1 km □ More than 1 km		TSS	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks		
		Cost of preventive/mitigating as we /operation cost	Cost of preventive/mitigating as well as monitoring integrated in the construction			
	Use of the nearest well: Drinking/Domestic Industrial Agricultural		☑ pH ☐ Annual ☐ Semi-annual ☐ Quarterly ☐ Monthly ☑ TSS ☐ Annual ☐ Concentration ☐ Quarterly ☐ Monthly ☑ BOD ☐ Annual ☐ Semi-annual ☐ Quarterly ☐ Monthly ☑ Color ☐ Annual ☐ Semi-annual ☐ Quarterly ☐ Monthly ☑ Oil and ☐ Annual ☐ Coliform ☐ Semi-annual ☐ Quarterly ☐ Monthly ☑ Oil and ☐ Annual ☐ Grease ☐ Semi-annual ☐ Quarterly ☐ Monthly ☑ Heavy ☐ Annual ☐ Quarterly ☐ Monthly ☑ Heavy ☐ Annual ☐ Quarterly ☐ Monthly ☑ Heavy ☐ Annual ☐ Quarterly ☐ Monthly Monthly			

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Cost of preventive/mitigating as we	Monitoring Parameters/ Implementation ell as monitoring integrated in the construction	Remarks
□ Competition in water use □ Depletion of water resources	Size of population using receiving surface water:	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 Increase storage capacities of water supply structures for resilience to greater climate variations and extremes Others, specify	 ✓ Regular monitoring for presence/absence of complaints ✓ Regular coordination with concerned agencies ✓ Regular monitoring for occurrences of water shortages ✓ Others, specify 	
☐ Increased occurrence of flooding	Is the project site located in an area identified by MGB/PAGASA as flood prone? Yes No	 ☐ Use appropriate design for project facilities including appropriate drainage mechanism considering the existing local drainage system. ☐ Regularly remove debris and other materials that may 	 ✓ Regular monitoring for presence/absence of complaints ✓ Regular coordination with concerned agencies ✓ Regular monitoring for increased frequency of flooding ✓ Others, specify 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Cost of preventive/mitigating as we /operation cost	Monitoring Parameters/ Implementation ell as monitoring integrated in the construction	Remarks
		obstruct water flow Use appropriate technology (e.g., raised hand-pumps) to protect drinking water from flood contamination Others, specify		
AIR / NOISE				
Air quality degradation	Distance to nearest community:	 ☑ Properly operate and maintain all emission sources (e.g. vehicles, boiler, generator, etc) ☑ Install, when applicable, the ☑ appropriate air pollution control device/s ☑ Strictly enforce good housekeeping practices ☑ Control vehicle speed to lessen suspension of road dust ☐ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents ☑ Use covered vehicles to deliver materials that may generate dust ☐ Others, specify 	Regular monitoring for presence/absence of complaints Regular (ocular) inspection of: Absence of white or black smoke from vehicles, generator, etc. Absence of black smoke from stack/s Presence of truck cover during deliveries Regular monitoring of ambient air quality: Parameter Frequency PM10 Annual Semi-annual Quarterly	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring F Impleme	Parameters/	Remarks
		Cost of preventive/mitigating as we /operation cost	Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
		·	☑ TSP	☐ Annual ☐ Semi-annual	
			☑ NO ₂	☐ Quarterly ☐ Annual ☐ Semi-annual	
			☑ SO ₂	☐ Quarterly ☐ Annual ☐ Semi-annual	
			☐ Trace metals:	☐ Quarterly ☐ Annual ☐ Semi-annual ☐ Quarterly	
			☐ Others, specify	☐ Annual ☐ Semi-annual ☐ Quarterly	
			Regular monitoring of	of stack emissions:	
			Parameter	Frequency	
			☑ PM10	☐ Annual☐ Semi-annual☐ Quarterly	
			☑ TSP	☐ Annual ☐ Semi-annual ☐ Quarterly	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Cost of preventive/mitigating as we	Monitoring Parameters/ Implementation ell as monitoring integrated in the construction	Remarks
□ Nuisance due to generation of obnoxious/ unpleasant odor	Distance to nearest community: O to less than 0.5 km O.5 to 1 km More than 1 km Is the wind direction blowing towards the nearest community most of the year? Yes No	Regular clean-up and good housekeeping practices Use of environment-friendly deodorizer or odor masking substances Spraying natural / microbial disinfectants Provide adequate buffer and/or planting of trees Implement odor mitigating measure Others, specify	NOx	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures Cost of preventive/mitigating as we	Remarks	
☐ 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	□ Properly operate and maintain all emission sources (e.g. vehicles, boiler, generator, etc) □ Install, when applicable, the appropriate air pollution control device/s □ Implement appropriate operating hours □ Control vehicle speed to lessen suspension of road dust □ Others, specify	Regular monitoring for presence/absence of complaints Regular monitoring of buffer zones Quarterly monitoring of noise level Others, specify	
PEOPLE				
 □ Displacement of residents including indigenous people (if any) in the project site and within its vicinity □ Enhanced employment and/or livelihood 	Size of population of host barangay: □ ≤ 1,000 persons □ >1,000 and ≤ 5,000 persons □ >5,000persons □ Indigenous People	 Provide relocation/disturbance compensation packages Prioritize local residents for employment Promptly pay local taxes and other financial obligations Regular coordination with LGU 	 ✓ Regular monitoring for presence/absence of complaints ✓ Regular coordination with LGU ☐ Others, specify 	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as we /operation cost	ell as monitoring integrated in the construction	
opportunities Reduced employment and/or livelihood opportunities Increased revenues for 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 Impacts on community health and safety	Classification of host barangay: Urban Rural Employment/Livelihood Opportunity Rate in the host Municipality: High Low Description:	 □ Conduct prior consultation and coordination to minimize disruption of daily domestic activities and to ensure respect for IP rights and cultural practices □ Ensure participation of IPs in consultations and dialogues □ Provide appropriate traffic/warning signs, lighting, etc. □ Others, specify 		
	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.)			

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
	☐ Recreation and sports facilities ☐ Others, specify			
□ Destruction/disturbanc e of physical cultural resources. (✓ if project site has been identified to have such by NM, NHCP, NCAA and LGUs)	Physical Cultural resources within the vicinity of the project site:	Implement appropriate protocols based on NM, NHCP, NCAA and LGU guidelines including those for chance finds (if any). Specify:	Regular coordination with NM, NHCP, NCAA and LGU	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		Cost of preventive/mitigating as we /operation cost	ell as monitoring integrated in the construction	
Safety Risks ☑ Fire ☑ Explosions ☑ Release of toxic materials ☑ Structural Failure	Source of risks Flammable substances, please specify Explosives, please specify Toxic substances, please specify	 ✓ Regularly coordinate with LGU □ Provide appropriate warning signs, lighting and barricades, whenever practicable ✓ Observe proper housekeeping □ Provide on-site medical services for any emergency. □ Participate in public awareness programs on health and safety □ Implement appropriate safety programs for both community and workers ✓ Strictly comply with fire, safety and similar regulatory requirements □ Strictly comply with requirements of RA 6969 □ Others, specify 	 ✓ Regular monitoring for presence/absence of complaints ☐ Regular monitoring of buffer zones ✓ Regular coordination with LGU ✓ Regular submission of reports to concerned agency ☐ Others, specify 	
	☐ Others, specify			