APPENDICES
EIA REPORT

Bagtingon Small Reservoir Irrigation Project (BSRIP)

Barangay Bagtingon, Buenavista, Marinduque

11 Appendices

11.1 Technical scoping checklist

ECC APPLICATION SCREENING FORM FOR HYDROPOWER/DAM PROJECTS
(Required an EIS per existing guidelines)

Control No: _____
☐ 1st ☐2nd ☐3rd ___ th Screening

Date Submitted for Screening: _____
Form of Submission: ___ Hard ___ Digital

Project Title: **BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT**
Project Location: **Barangay Bagtingon, Buenivista, Marinduque Province**
Project Proponent **NATIONAL IRRIGATION ADMINISTRATION - MIMAROPA**
Contact Person: **Engr. GERARDO R. PEREZ**
Address: **Bayanan II, Calapan City, Oriental Mindoro**
Contact No: **09178495267; Landline: (043) 288-7267**
Email: mimaropa@nia.gov.ph

EIS Consultant: **Geographic Innovations for Development Solutions, Inc. (GRIDs)**
Contact Person: **MILBEN A. BRAGAIS, EnP / President**
Address: 4th Fl., Hernandez Bldg, Grove, 4030 Los Banos, Philippines
Contact No: (049) 545-1576 / grids.inc.ph@gmail.com

Project Classification & Type: ***Irrigation with DAM Project***
Project Classification Code *(Refer to RPM for DAO 2003-30 and EMB MC 2014-005)*: ***Category B. Non-ECP 3.1.***
Project Size based on Classification: ***Item 3.1.1 Dams (including those Irrigation, Flood Control Project, Water Sources, and Hydropower projects) including run-of-river types); >5 Hectares but <25 Hectares OR > 5 million m^3 but <20 million m^3.***

Checklist of Documentary Requirements

	Acceptable?		Screening Officers' Remarks
	Yes	**No**	
• Environmental Impact Statement (EIS)[1]			
• Proof of Compatibility with the existing Land Use Plan (Zoning Certification or Certification from the Municipality) Remarks: To follow			
• Proof of Authority over the Project Site - Equal documentation relative to the tenurial instrument - PAMB Clearance/Resolution - NWRB			
• Accountability Statements of Preparers & Proponent (see Annexes 2-21 & 2-22 of Revised Procedural Manual for DAO 2003-30)			
• Photographs or plates of the project site, impact areas and affected areas and communities - Geotagged photographs or plates of the project site, 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)			

ACTION TAKEN: (Please check to indicate the corresponding action taken)

☐ Document accepted; please submit ___ copies
EIARC Needed? ( ) Yes ( ) No Expertise Needed: _____
Processing Fee: PhP _____ *(Pay at EMB Cashier)* Review Fund: Based on WFP *(Pay to the duly authorized 3rd Party Review Fund Manager)*

☐ Document not accepted

O.R. # _____
Date _____

[1] *Please refer to attached checklist of EIS Contents*

ECC APPLICATION SCREENING FORM FOR HYDROPOWER/DAM PROJECTS
(Required an EIS per existing guidelines)

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NOTED BY:

John Junico B. Udal
Screening Officer

Engr. Buena Fe A. Rioflorido
Chief, Clearance and Permitting Division

EnP, Nicole Yuri Dorado
Chief, Environmental Impact Assessment Section

EMB Regional Office
Screening Office

Date: **01 September 2023**

ECC APPLICATION SCREENING FORM FOR HYDROPOWER/DAM PROJECTS
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Checklist of EIS Contents

Executive Summary (maximum of 5 pages)

Contents	Page #	Acceptable?	REMARKS
Project Fact Sheet PD Summary (1 page)	i		
Process Documentation of the conduct of EIA (1 page) *(EIA Team, EIA Study Schedule & Area, EIA Methodology, Public Participation)*	i-iv		
Summary of Baseline Characterization Key Environmental Impacts and Management & Monitoring Plan and EGF Commitments.	v		

I. Project Description

Items to be Described	Specific Data Requirement	Page #	Acceptable?	REMARKS
1) Project Location and Area	a) Map showing sitio, barangay, municipality, province, region boundaries, vicinity, proposed buffers surrounding the area and Primary & secondary impact areas	1-2		
	b) Geographic coordinates (shape file data) of project area (use WGS 84 datum - GPS setting)	1-3		
	c) Rationale for selection primary & secondary impact areas	1-12		
	d) Discuss the accessibility of the project site/area	1-9		
	e) Proximity of the project to the nearest Protected Areas (PAs) and/or Ramsar Site/s. - Including the proximity to coastal resources like corals, seagrasses, among others	1-4		
2) Project Rationale	• Cite and focus on the need for the project based on national and regional/local economic development in terms of contribution to sustainable development agenda or current development thrusts. • Describe the justification for the Project with particular reference made to the economic and social benefits, including employment and associate economic development, which the project may provide. The status of the project should be discussed in a regional and national context.	1-9 to 1-12		
3) Project Alternatives	a) Cite criteria used in determining preliminary options for facility siting, development design, process/technology selection, resource utilization including discussion of the consequences of not proceeding with the project: • Contextualize site selection of the DAM, as well as the canals, in terms of vulnerability/susceptibility to Liquefaction, Ground Shaking, Ground Rupture, Earthquake-induced Landslides Volcanic eruptions, rain-induced landslide storm surge, tsunami, and flooding as well as extreme climatologic conditions (data can be obtained from NDRRMC and NAMRIA as well as mandated agencies) • Discuss the alternatives (type and location) considered and nominated during the course of selecting the best option for which the EIS is prepared; • Description of the bases upon which the alternatives were rejected in favor of the preferred option; • Description of the significant differences in environmental impacts among the alternatives considered. Siting: Alternative project locations including factors significant to the selection such as perception of affected communities with regards to project, ancestral domain issues, land classification, etc. Discuss other options on the siting of major components of the project within the project area. Discuss alternative location of access roads in case the preferred locations of the various components are found environmentally not feasible. Technology Selection/Operation Processes: Discuss project's advantage over alternative technologies, operation processes and engineering design Discuss alternative measures for the prevention of the occurrence of major impacts Resources: Discuss the alternatives considered for power generation and how the decisions were made. Discussion	1-14 to 1-18		

	should also be in the context of climate change (e.g. use of renewable energy).			
	b) Reasons for selecting the preferred options delineated in terms of technical, commercial, social and natural environmental aspects	1-14 to		
	c) After the determination, please indicate a summary of the comparative environmental impacts of each alternative	1-17		
4) Project Components	• Identification of Major components including technical details such as specifications, capacity, number, etc. (e.g. penstock, spillway, freeboard, etc.) • Specify the operations and processes	1-17 to 1-20		
	• Identification of other Support Facilities (i.e. emergency power, process control, early warning/alarm system, etc.) • Identification of infrastructure requirements (transport—road/rail/ship, energy, stormwater drainage, Sewerage, Telecommunications, accommodation and other infrastructure),	1-20		
	• Identification of Pollution control devices and corresponding facility being served or connected Identification of waste management facilities and devices to address solid waste materials (domestic and hazardous and chemicals) air emissions, solid waste disposal, and wastewater.	1-23		
	• General layout of facilities; • Footprint of proposed layout of project facilities (if any) • Maps should be provided showing the precise location of the project area, and in particular, the location and boundaries of project area, location and footprint of project components, and location of all proposed buffers. • When applicable contextualize using the PAG-ASA 2020 and 2050 projected rainfall/temperature data.	1-2, 1-8, 1-21		
5) Process/ Technology	Discuss the impacts of the PAG-ASA 2020 and 2050 projected rainfall pattern on the project and performance/efficiency of the facility.	1-21		
	Power & water supply system - In the context of different project phases (construction, demobilization, and operation)	1-23		
	Waste Management Systems (wastewater treatment facility, dust collector, etc.) in the context of different project phases (construction, demobilization, and operation).	1-23		
6) Project Size	Total volume of water to be impounded. Capacity and type of Dam structure (Full details)	1-25		
	Total Project Area in square meters or hectares including area to be inundated and/or service area	1-25		
7) Manpower	Tabulate the following per project phase: • manpower requirements; • expertise/skills needed; • nature & estimated number of jobs available for men, women, and indigenous peoples (if sited in IP ancestral land); preferred scheme for sourcing locally from host and neighboring LGUs	1-29 to 1-32		
8) Development Plan, Description of Project Phases and Corresponding Timeframes	Phases to be described in terms identifying specific activities (w/ special attention on those with significant environmental impacts as well as climate change adaptation options relevant to the project and project activities) and corresponding projected implementation timeframes: • ***Pre-construction*** (e.g., planning, acquisition of rights to use land, etc.) • ***Construction*** (e.g., land/site clearing, temporary housing, transport of materials, health, sources of the construction materials, and other services for the workforce) • ***Demobilization*** of the contractors after the construction phase. • ***Operation*** (projected period of start-up/commissioning/full operation of various project components) include discussion on the operation of various components (as identified above) in terms of material/product handling, infrastructure requirements (transport—road/rail/ship, energy, water supply and storage, stormwater drainage, sewerage, telecommunications, accommodation and other infrastructure), waste management (character and quantities of waste materials, air emissions, Solid waste disposal, wastewater)	1-26 to 1-29		

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	• ***Abandonment*** Abandonment/Decommissioning Plan, to include Land/soil restoration and procedures & projected schedule. The land use suitability of the various land disturbance types should also be described. The proposed decommissioning plan in terms of the following: • Procedures for the decommissioning of the project components; • Demolition of structures; • Alternatives for the future use of abandoned area. Consistency with long-term zoning and land use development plan of the municipality; and • Restoration requirements			
9) Indicative Project Investment Cost (Philippine Peso)		1-33		

General Contents	Specific Content Requirement	Page #	Acceptable?	REMARKS
II. Key Environmental Impacts and Management/Monitoring Plan	See the attached checklist of contents When applicable include appropriate climate change adaptation measures/options (embedded in each sector).	2-39 to 2-219		
III. Environmental/ Ecological Risk Assessment	See the attached checklist of contents.	4-425 to 5-257		
IV. Impact Management Plan	Limit to most significant impacts per project phase and per environmental component arising from key environmental aspects (See Annex 2-17 of RPM for DAO 2003-30)	3-224 to 3-244		
V. Social Development Framework (SDP) and IEC Framework	SDP • Community development or livelihood programs/activities, projected beneficiaries, partner institutions, timeframe of implementation as well as source and amount allotted per activity/component (See Annex 2-18 of RPM for DAO 2003-30) IEC • Target sector, key messages, scheme/strategy/methods, Information medium, timelines and frequency, cost (See Annex 2-19 of RPM for DAO 2003-30)	5-257 to 5-264 5-625 to 5-281		
V. Environmental Compliance Monitoring	Environmental Performance by discussing the compliance with the ECC conditions, IMP, and EMMoP commitments. Discuss also the compliance with other permitting requirements under different environmental laws.	6-282 to 6-283		
	Self Monitoring Plan Use Annex 2-20 of RPM for DAO 2003-30 as template	6-284 to 6-286		
	Environmental Guarantee and Monitoring Fund Commitments • Present a propose amount of EMF (based on a draft AWFP in Annex 3-4 and consistent with guidelines in Annex 3-5 of RPM for DAO 2003-30); and • Present a proposed amount of EGF and the basis for the estimate following the guidelines in annex 3-6 of RPM for DAO 2003-30	6-291		
VI. Emergency Response Policy and Generic Guidelines	The safety policy and generic guidelines should be consistent with the regulatory requirements. Emergency Preparedness should also consider natural hazards to the infrastructures and facilities. • Include ERA: Safety-based, protection of the workers with respect to construction, and protection of the guests.	7-292		

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General Contents	Specific Content Requirement	Page #	Acceptable?	REMARKS
	Assessment of the existing policies and generic procedures for construction and operation to be submitted as post-ECC, within a timeframe specified in the ECC.			
VII. Abandonment /Decommissioning /Rehabilitation Policy and	Statement on Proponent's policies and generic procedures for Rehabilitation/ Decommissioning/Abandonment to be submitted post-ECC, within a timeframe specified in the ECC. Framework for the abandonment/decommissioning to include institutional arrangement or Organizational Arrangement.	8-293 to 8-296		
VIII. Institutional Plan for EMP Implementation	Discuss the organizational scheme of the proponent including line of command and reporting procedures as well as manpower complement and relationships with other operating departments.	9-296 to		
	Table Of Organization. Discuss the relationship of the proponent and the contractor during the project construction. Institutional plan for the implementation of the IMP and EMMoP during the operation of the project.	9-302		

Checklist of EIS Contents

Key Environmental Impacts and Management/Monitoring Plan

List of Key Impacts	Baseline Data Parameter Requirements	Required Assessment Methodology/Approach	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*								Remarks
			Baseline Conditions		Impact Analysis		Mgmt. Plan		Monitoring Plan		
During scoping: Unless otherwise specified as agreed during scoping, all items listed are required. Write specific instructions (if any) on the blanks/spaces provided			Page	✓	Page	✓	Page	✓	Page	✓	
I. Land											
1.1 Land Use and Classification		Assessment of the compatibility of the proposed project in relation to land use and / or the coastal resource management plan of the LGU if any.									
1.1.1 Change/Inconsistency in land use	Description & Map showing the project area in relation to existing land use.		2-44		2-49		4-238		6-291		
1.1.2 Encroachment in Environmentally Critical Areas (ECAs)	Identify ECA where the project is located or near the project area. Identify areas vulnerable/susceptible to natural hazards where the project is located or near the project area (include map/s). Include in the discussion the distance of the nearest protected area within the province pursuant to DMO 2023-01.		2-46 2-69 to 2-76 2-45		2-49 to 2-50		4-240 4-241				
1.1.3 Possible tenurial / land issue	Identify areas under CARP or with CADC / CADT where the project is located or near the project area. Specify other conflicting tenurial / land issues (e.g. IFMA/CBFMA within COC and within MPSA, etc.)		2-45 to 2-52		2-50		4-238				
1.2 Geology/Geomorphology											
1.2.1 Change in surface landform/ topography/ terrain/slope	Slope and Elevation/Topographic Map;		2-59 to 2-60		2-79		4-241		6-291		
1.2.2Change in sub-surface/ underground geomorphology	Regional/General Geological Map		2-61		2-79		4-242				
1.2.3 Inducement of subsidence, liquefaction, landslides, mud / debris flow, etc.	Geological Cross-Sections; Sequence Stratigraphic Column of Rock Units; Geomorphological Map: G Factor Contour Maps; Seismicity Map; Differential Settling Map; Results of Geochemical Analyses of Rock Samples (applicable areas); hazard maps (NAMRIA, NDRRMC, MGB, PHIVOLCS, PAG-ASA)	Include discussions on impacts/effects of natural hazard on the project.	2-63 2-69 to 2-77		2-79		4-242				
1.3 Pedology											
1.3.1 Soil erosion / Loss of topsoil/overburden	Summary of Soil Investigation Report on soil type and quality; Erodibility potential; Bank stability;	USLE / similar modeling when applicable	2-84 to 2-90		2-95		4-242				

Control No: ☐ 1st ☐ 2nd ☐ 3rd ____ th Screening

List of Key Impacts	Baseline Data Parameter Requirements	Required Assessment Methodology/Approach	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*								Remarks
			Baseline Conditions		Impact Analysis		Mgmt. Plan		Monitoring Plan		
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1.3.2 Change in soil quality/fertility	Laboratory results on soil sample analysis for N, P, K, pH, organic matter, micronutrients	Physical analysis (water holding capacity, texture aggregate stability of dam); Secondary data: chemical analysis	2-90 to 2-95		2-95		4-244		6-291		
1.4 Terrestrial Ecology											
1.4.1 Vegetation removal and loss of habitat	• Complete inventory of vegetation in the Impact Area • Flora and fauna species inventory or survey report; • Historical occurrences of pest infestation, forest/grass fire and/or similar incidences	Quadrat sampling for flora; Use of mist nets, traps, transect walk for fauna Impact of inundation on terrestrial ecology.	2-99 to 2-128		2-129		4-244		6-291		
1.4.2 Threat to existence and/or loss of important local species	Summary of endemicity / conservation status		2-99 to 2-128		2-129		4-244				
1.4.3Threat to abundance, frequency and distribution of important species	• Summary of abundance, frequency and distribution • Economic importance and uses of significant flora and fauna		2-99 to 2-128		2-130		4-244				
1.4.4 Hindrance to wildlife access	Sampling / survey map in relation to the project site		2-101 to 2-104		2-131		4-244				
2. THE WATER											
2.1. Hydrology/Hydrogeology											
2.1.1 Change in drainage morphology / Inducement of flooding/ Reduction in stream volumetric flow	Drainage map; historical flooding/drought occurrences, stream flow measurements/estimates; Delineation of watershed /sub-watersheds/ floodplain; and identification of aquifers if any	flood simulation/modeling should consider extreme weather conditions and the PAG-ASA 2020 and 2050 climate projections	2-134 to 2-144		2-139		4-245		6-292		
2.1.2 Change in stream, lake water depth	Regional hydrogeological map		2-137		2-143		4-245				
2.1.3 Depletion of water resources / competition in water use	Identification of current / projected water use in the area and adjacent areas Spring and well inventory and location map; depth of water table ; Analysis/estimation of water availability taking into consideration the PAG-ASA 2020 and 2050 climate projections	conduct water balance / budget analysis	2-134 to 2-144		2-143						
2.2 Oceanography (Not Applicable)											
2.2.1 Change/disruption in circulation pattern	Predicted tides; 24-hour tidal cycles; Surface current system										

Control No: ☐ 1st ☐ 2nd ☐ 3rd ____ th Screening

List of Key Impacts	Baseline Data Parameter Requirements	Required Assessment Methodology/Approach	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*								Remarks
			Baseline Conditions		Impact Analysis		Mgmt. Plan		Monitoring Plan		
During scoping: Unless otherwise specified as agreed during scoping, all items listed are required. Write specific instructions (if any) on the blanks/spaces provided			Page	✓	Page	✓	Page	✓	Page	✓	
2.2.2 Change in bathymetry	Bathymetric map;	USLE / similar modeling when applicable									
2.3 Water Quality											
2.3.1 degradation of groundwater quality	Physico-Chemical characterization of water : ✓ pH ✓ DO ✓ BOD5 ✓ Oil and grease ✓ TSS ✓ SAR sampling site map	Use DENR standard methods and procedures for sampling and analysis.	2-146 to 2-150		2-151		4-246		6-292		
2.3.2 degradation of surface water quality											
2.3.3 degradation of coastal/marine water quality											
2.4 Freshwater Ecology	*FULL Assessment*										
2.4.1 Threat to existence and/or loss species of important local and habitat	• Summary of endemicity / conservation status • Abundance of ecologically and economically important species (fishes, benthos, planktons); • Presence of pollution indicator species; sampling site map	Impact of inundation on freshwater ecology.	2-153 to 2-159		2-160		4-216				
2.4.2 Threat to abundance, frequency and distribution of species											
2.5 Marine Ecology (Not Applicable)											
2.5.1 Threat to existence and/or loss of important local species and habitat	• Abundance/densities/distribution of ecologically and economically important species (mangroves, fishes, benthos, planktons, coral reefs, algae, seaweeds, sea grasses); • Presence of pollution indicator species; • Historical occurrences of red-tide, fish kill or any related event • marine resource map sampling site map	Quadrat, transect, line intercept, spot dive, manta tow, marine resource characterization (e.g. municipal and commercial fisheries data) Impact of inundation on marine ecology.									
2.5.2 Threat to abundance, frequency and distribution											
3.0 THE AIR											
3.1 Meteorology/Climatology											

Control No: ☐ 1st ☐ 2nd ☐ 3rd ___ th Screening

List of Key Impacts	Baseline Data Parameter Requirements	Required Assessment Methodology/Approach	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*								Remarks
			Baseline Conditions		Impact Analysis		Mgmt. Plan		Monitoring Plan		
During scoping: Unless otherwise specified as agreed during scoping, all items listed are required. Write specific instructions (if any) on the blanks/spaces provided			Page	✓	Page	✓	Page	✓	Page	✓	
3.1.1 Change in the local climate e.g. local temperature	Monthly average rainfall and temperature of the area; Climatological normals/extremes; Wind rose diagrams; Frequency of Tropical cyclones	• In the assessment, consider the PAG-ASA climate change projections for 2020 and 2050.	2-161 to 2-169		2-171		4-248				
3.1.2 Contribution in terms of greenhouse gas emissions	Data on Greenhouse gasses (i.e. carbon dioxide, methane); Calculation of projected GHG emission	Discuss the project's contribution in terms of greenhouse gas emissions	2-170		2-171		4-248				
3.2 Air Quality (& Noise)											
3.2.1 Degradation of air quality	characterization of ambient air quality: ✓ TSP/PM10 (for sampling methods refer to Clean Air Act) sampling site map	Use DENR standard methods and procedures for sampling and analysis. For construction phase only.	2-174 to 2-177		2-177		4-249		6-292		
3.2.2 Increase in ambient noise level	Characterization of ambient noise level sampling site map	Use DENR standard methods and procedures for sampling and measurement.			2-178		4-250				
4.0 THE PEOPLE											
4.1 Displacement of settler/s Displacement / disturbance of properties Change/conflict in land ownership Change/conflict Right of way	Demographic data of impact area: - Number of households and household size - Land area, - Population, - Population density /growth - gender and age profile, - literacy rate, profile of educational attainment,	Discuss how the project would affect existing properties in the area in terms of relocation and devaluation	2-181 to 2-218		2-217		4-252		6-293		
4.2 In-migration proliferation of informal settlers	settlements map Census of population / property that will be displaced / disturbed Housing ownership profile / availability of housing/ number of informal settlers	Discuss the in-migration patterns as a result of project implementation	2-181 to 2-219		2-219		4-253				

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List of Key Impacts	Baseline Data Parameter Requirements	Required Assessment Methodology/Approach	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*								Remarks
			Baseline Conditions		Impact Analysis		Mgmt. Plan		Monitoring Plan		
During scoping: Unless otherwise specified as agreed during scoping, all items listed are required. Write specific instructions (if any) on the blanks/spaces provided			Page	✓	Page	✓	Page	✓	Page	✓	
4.3 Cultural/Lifestyle change (especially on Indigenous People, if there's any)	Demographic data on Indigenous People (if any) and existing Culture/Lifestyle that may be significantly affected	Discuss the impacts on IPs and Culture/Lifestyle	2-181 to 2-219		2-220		NA				
4.4 Threat to delivery of basic services /resource competition	Availability of public services in terms of: • Water supply • Power supply • Communications /transportation • health resources (Government and Private) • peace and order / crime • education facilities • recreational facilities / sports facilities statistical data / information related to public services: • literacy rate, profile of educational attainment • Morbidity and mortality rates (infants and adults - 5-year trend) • Common diseases in the area including endemic diseases; • Environmental Health and Sanitation Profile; • Crime rate • Food security	Discuss how the project would affect the delivery of basic services and may result to resource competition in the area	2-181 to 2-219		2-220		4-255				
4.5 Threat to public health and safety		Discuss the project implementation's threat to public health vis-à-vis the baseline health conditions in the area Analysis of diseases that may be affected by climate change.	2-181 to 2-219		2-220 to 2-221		4-255				
4.6 Generation of Local Benefits from the project Enhancement of employment and livelihood opportunities Increased business opportunities and associated economic activities Increased revenue of LGUs	Socioeconomic data: • Main sources of Income • Employment rate/ profile • sources of livelihood • commercial establishments and activities • banking and financial institutions		2-181 to 2-219		2-222		4-257				
4.7 Traffic congestion	Road network/ systems Existing Transportation/traffic situation	Traffic impact assessment if applicable (including capacity of road system in terms of load/count)	1-11 and 2-222		2-222		4-258				

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III. Environmental Risk Assessment									
Type of Risks	**Scope of Assessment**	**Report/Output Required**	✓ for *completeness during procedural screening; page numbers should be provided upon submission of the EIS*						
			ERA		**ERP**		**Monitoring Plan**		REMARKS
During scoping: Check (✓) required/applicable items; items with ✓ are automatically required; write specific instruction (if any) on the blanks provided			Page	✓	Page	✓	Page	✓	
☐ Physical Risks (Failure of Structure w/c could endanger life, property and/or the environment)	- Identify conditions, events and "trigger" which could be significant in bringing about identified physical risks - Description & assessment of the possible accident scenarios - Assessment of whether the project location is projected to have extreme climate events for 2020 &or 2050 that could contribute to the triggering identified scenarios - Description of the hazards both immediate (acute effects) and delayed (chronic effects) for man and the environment posed by the failure of structure, as applicable	ERA REQUIREMENT ☐Quantitative Risk Assessment(QRA) Specific Instructions : _____ ☑Descriptive/Qualitative Risk Assessment Specific Instructions : _____ ☑ EMERGENCY PLAN : Specific Instructions : _____ ***Refer to annex 2-7e for the decision criteria the outline***	3-227		7-297		6-294		

Noted By:	**Signature**		**Signature**
REVIEW COMMITTEE MEMBERS		**PROJECT PROPONENT'S REPRESENTATIVE & CONSULTANT**	
1. Engr. Jose Reynato Morente		1. For. Milben A. Bragais	
2. Maria Lourdes Q. Moreno, Ph.D		2. Engr. Daniel Angelo M. Malabanan	
3. Engr. Buena Fe A. Rioflorido		3.	
4. EnP. Nicole Yuri V. Dorado			
5. Bianca Christianne I. Roldan			
6. EnP. John Junico Udal			
7. Engr. Dan Goodwin S. Borja			
8. Engr. Willsone Ray M. Añoso			

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RESOURCE PERSONS			
1.			
2.			

11.2 Proof of Compatibility with existing Land Use

11.3 Proof of Authority over Project Site

HALAW SA KATITIKAN NG UNANG PANGKARANIWANG PAGPUPULONG NG PROTECTED AREA MANAGEMENT BOARD (*PAMB*) NG MARINDUQUE WILDLIFE SANCTUARY (MWS) NA GINANAP NOONG IKA–28 NG PEBRERO, 2019 SA FREEDOM ECO ADVENTURE PARK, BUNGANAY, BOAC, MARINDUQUE

PANGALAN	POSISYON/AHENSYA/BARANGAY
MGA DUMALO:	
1. MPDC Eugenia DL. Cruzado	MPDC-LGU Torrijos *(Alternate)*
	Pansamantalang Tagapangulo
2. Kgg. Lito M. Montiano	Barangay Kagawad, Binunga, Boac *(Alternate)*
3. Kgg. William Mantal	Barangay Kagawad, Canat, Boac *(Alternate)*
4. Kgg. Rolando P. Sapallo	Punong Barangay, Duyay, Boac
5. Kgg. Jose M. Lazarte	Punong Barangay, Hinapulan, Boac
6. Kgg. Winefredo H. Julao	Barangay Kagawad, Tambunan, Boac *(Alternate)*
7. Kgg. Benjamin Larga	Punong Barangay, Tugos, Boac
8. Kgg. Johnny C. Francisco	Barangay Kagawad, Bagtingon, Buenavista *(Alternate)*
9. Kgg. Radito A. Alvarez	Barangay Kagawad, Malbog, Buenavista *(Alternate)*
10. Kgg. Alberto F. Fiegalan	Barangay Kagawad, Sihi, Buenavista *(Alternate)*
11. Engr. Arturo M. Salva, Jr.	MPDC-LGU Gasan, *(Alternate)*
12. Kgg. Ronald S. Sapungan	Barangay Kagawad, Antipolo, Gasan *(Alternate)*
13. Kgg. Rizal L. Basco, Jr.	Punong Barangay, Tabionan, Gasan
14. Kgg. Milton J. Magaling	Barangay Kagawad, Tiguion, Gasan *(Alternate)*
15. Kgg. Domingo P. Rioflorido	Barangay Kagawad, Masaiposi, Santa Cruz *(Alternate)*
16. Kgg. Sabino R. Rojo	Punong Barangay, Malibago, Torrijos
17. Kgg. Jessie R. Peralta	Punong Barangay, Nangka, Torrijos
18. Kgg. Ernesto L. Palomares	Barangay Kagawad, Sibuyao, Torrijos *(Alternate)*
19. Engr. Anton M. Llanes	SARPO, DAR *(Alternate)*
20. Engr. Menandro M. Maderazo	Senior Engr. A, NIA Marinduque
21. Prof. Doreen R. Mascareñas	Assoc. Prof. II, Marinduque State College *(Alternate)*
22. Gng. Elizabeth E. Manggol	Secretariat Head, MACEC
23. PCINSP Yancy Sapio	C, POBP-MPPO *(Alternate)*
24. G. Eleazar P. Manaoag	SRS II, DOST *(Alternate)*
MGA HINDI DUMALO:	
1. RED Henry A. Adornado	RED/Chairman, MIMAROPA Region
2. Gov. Romulo A. Bacorro, Jr.	Prov'l Governor/Co-Chairman
3. Kgg. Roberto M. Madla	Punong Bayan, Boac, Marinduque
4. Kgg. Enrique P. Landig	Punong Barangay, Balagasan, Boac
5. Kgg. Russel S. Madrigal	Punong Bayan, Buenavista, Marinduque
6. Kgg. Marisa R. Martinez	Punong Bayan, Santa Cruz, Marinduque
7. Kgg. Gerry M. Malubag	Punong Barangay, Bayuti, Boac

8. Kgg. Crisostomo N. Monterey	Punong Barangay, Boi, Boac
9. Kgg. Lorna M. Jimena	Punong Barangay, Tumagabok, Boac
10. Kgg. Delfin R. Fellizar	Punong Barangay, Devilla, Santa Cruz
11. Kgg. Aristeo R. Rodil	Punong Barangay, Makulapnit, Santa Cruz
12. Kgg. Bernardo P. Pastoral	Punong Barangay, Tambangan, Santa Cruz
13. Dir. Hazel DP. Salvador	Provincial Director, DTI Marinduque
14. G. Edgar H. Loto	Proj. Dev'l Officer II, DepEd
15. G. Rolinio S. Sajul	Chairman, Malbog Upland Farmers Association (MUFA)

RESOLUSYON BILANG 2019 -002

RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN *(PAMB)* SA PAGBIBIGAY NG PAHINTULOT O CLEARNCE NA MAISAGAWA NG NATIONAL IRRIGATION ADMINISTRATION (NIA) MARINDUQUE ANG PROYEKTONG SMALL RESERVOIR IRRIGATION PROJECT (SRIP) SA BARANGAY BAGTINGON, BUENAVISTA, MARINDUQUE NA SAKLAW NG MARINDUQUQE WILDLIFE SANCTUARY (MWS)

SAPAGKAT, ang pangunahing layunin ng *Protected Area Management Board (PAMB)* ay mapangalagaan ang samu't saring buhay ng *Marinduque Wildlife Sanctuary (MWS)* sa pamamagitan ng likas-kayang pag-unlad tungo sa pangmatagalang kapakinabangan;

SAPAGKAT, ang lahat ng programang isasagawa sa looban ng nasabing Pinangangalagaang Pook (*Protected Area)* maging ito man ay pagsasaliksik *(research)* o pagpapaunlad *(development)* gaya ng pagtatayo ng istruktura o dam ay dapat mayroong kaukulang pag-aaral bago bigyan ng kaukulang pagsang-ayon *(clearance)* ng *Kapulungan (PAMB)* upang masiguro ang angkop at maayos na pangangalaga dito;

SAPAGKAT, ang *National Irrigation Administration (NIA) Marinduque* ay may programa ukol sa pagsasagawa ng *Small Reservoir Irrigation Project (SRIP)* sa Barangay Bagtingon, Buenavista, Marinduque na saklaw ng *Marinduque Wildlife Sanctuary (MWS)* at ang direktang makikinabang sa proyekto ay ang mga komunidad at mga magsasakang nakatira sa Barangay Bagtingon, Caigangan, Daykitin at Malbog Buenavista, Marinduque;

SAPAGKAT, matapos ang talakayan at pagsusuri sa nasabing proyekto ay napag-alaman ng *Kapulungan (PAMB)* na magdudulot ito ng negatibong epekto sa Pinangangalagaang-pook at buhay-ilang dito. Gayon pa man, ang negatibong epekto ng proyekto ay maaaring limitahan o mabawasan ito sa pamamagitan ng mga *mitigating measures* o *program* na popondohan at gagawin ng NIA;

DAHIL DITO, napagpasyahang bigyan ng pahintulot ng *Kapulungan (PAMB)* ang pagsasagawa ng *Small Reservoir Irrigation Project (SRIP) ng National Irrigation Administration (NIA) sa* nasasakupan ng Marinduque Wildlife Sanctuary (MWS) sa kundisyon na magkakaroon ng Memorandum of Agreement (MOA) kung saan nakasaad ang naging resulta ng pagtatasa at tutugunan ng NIA ang mga isyu at rekomendasyon ng PAMB;

Pahina 2 sa 3 pahina

9

PINAGTIBAY, base sa ginawang pagbobotohan ng *Kapulungan (PAMB)* na kung saan may labing-apat (14) na miyembro ang sumang-ayon na bigyan ng PAMB Clearance ang NIA; walong (8) hindi sumang-ayon at dalawang (2) abstain noong *ika 28 ng Pebrero, 2019* sa Freedom Eco Adventure Park, Barangay Bunganay, Boac, Marinduque .

Inihanda:

EMETERIO M. RECTO
PASu-MWS
Kalihim ng PAMB

Patotoo:

EUGENIA DL. CRUZADO
MPDC, LGU-Torrijos/Member, PAMB-MWS
Pansamantalang Tagapangulo

Pinagtibay:

HENRY A. ADORNADO, Ph. D.
Regional Executive Director, DENR- MIMAROPA Region
Chairperson, Protected Area Management Board

11.4 Accountability Statements of Preparers and Proponent

(049) 545 -1576
+639278869637
grids.inc.ph@gmail.com
4th Fl., Hernandez Bldg., Batong Malake
Los Baños, Laguna, 4030, Philippines

GRIDS
mapping better decisions

SWORN STATEMENT OF ACCOUNTABILITY OF PREPARERS

This is to certify that all information in this **Social Environmental Impact Statement (SEIS)** for the **Bagtingon Small Reservoir Irrigation Project (BSRIP)** in Barangay Bagtingon, Buenavista, Province of Marinduque are accurate and complete to the best of our knowledge and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgment. Should we learn of any information which would make this **SEIS Report** inaccurate, we shall immediately bring the said information to the attention of the DENR-EMB Region IV – B MIMAROPA

We hereby certify that no DENR-EMB personnel was directly involved in the preparation of this **SEIS Report** other than to provide procedural and technical advice consistent with the guidelines in the DAO 2003 – 30 Revised Procedural Manual.

We hereby bind ourselves jointly and in solidarity to answer any penalty that may be imposed arising from any misrepresentation of failure to state material information in this **SEIS Report.**

IN WITNESS WHEREOF, we hereby set our hands this 05 JUN 2024 at 2024.

EIA Team	Areas of Expertise	Signature
Marco A. Galang, PhD	Environmental Specialist/Team Leader	
Danesto B. Anacio,PhD	Social Safeguards Specialist / RAP Specialist	
Ms. Sarena Grace L. Quinones	IEC Expert	
Mr. Arvin A. Catausan	Agriculturist/Agronomist Specialist	
EnP. Bonifacio V. Labatos, Jr.	Aquatic Resource Specialist	
Ms. Angela A. Flores	Geologist	
For. Leonardo D. Barua	Watershed Management Specialist	
EnP. Milben A. Bragais	Hydrologist	

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Los Baños, Laguna, 4030, Philippines

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SUBSCRIBED AND SWORN TO before me this 05 day of JUL 2024 2024. Affiants exhibiting their Community Tax certificate information, as follows:

Community Tax Certification information

	Name	CTC No. PPort #	Date of Issue	Place of Issue
1)	Marco A. Galang, PhD	Driver's License	D12-95-034856	LTO, Pila Laguna
2)	Danesto B. Anacio,PhD	TIN ID	401-074-737-000	Baguio City
3)	Ms. Sarena Grace L. Quinones	Passport	P5538742A	DFA Manila
4)	Mr. Arvin A. Catausan	Postal ID	F85210278307	Laguna
5)	EnP. Bonifacio V. Labatos, Jr.	Professional License	0003273	Manila
6)	Ms. Angela A. Flores	Professional License	0001837	Manila
7)	For. Leonardo D. Barua	Professional License	0008894	Manila
8)	EnP. Milben A. Bragais	Driver's License	D12-16001748	Quezon City

(Atty.) ROMMEL G. OLIVA
NOTARY PUBLIC
FOR THE PROVINCE OF LAGUNA
Roll No 37137/May 1991
IBP Lifetime No. [illegible]736/Manila
PTR No [illegible]1-2-2024/Calamba City
MCLE Compl No VII-0009799 until April 14, 2025
My Commission expires on December 31 2025

Doc. No. 40
Page No. 09
Book No. XXIV
Series of 2024

SWORN STATEMENT OF ACCOUNTABILITY OF PROPONENT

This is to certify that all the information and commitments in this **Social Environmental Impact Statement (SEIS)** for the **Bagtingon Small Reservoir Irrigation Project (BSRIP)** in Barangay Bagtingon, Buenavista, Province of Marinduque is accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgement. Should we learn of any information which would make this SEIS Report inaccurate, we shall immediately bring the said information to the attention of the DENR-EMB IV-B MIMAROPA.

We hereby certify that no DENR-EMB personnel was directly involved in the preparation of this BAGTINGON SRIP SEIS Report other than to provide procedural and technical advice consistent with the guidelines in the DAO 2003-30 Revised Procedural Manual.

We hereby bind ourselves jointly and in solidarity to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this SEIS Report.

In witness whereof, we hereby set our hands this JUL 0 8 2024 day of _____, 2024 at BOAC, MARINDUQUE

ENGR. DANIEL ANGELO M. MALABANAN
Senior Engineer A/OIC
NIA – MARINDUQUE PIO

SUBSCRIBED AND SWORN to before me this JUL 0 8 2024 day of _____, 2024, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____ at _____ City Philippines.

NOTARY PUBLIC
PTR No. _____
Until _____

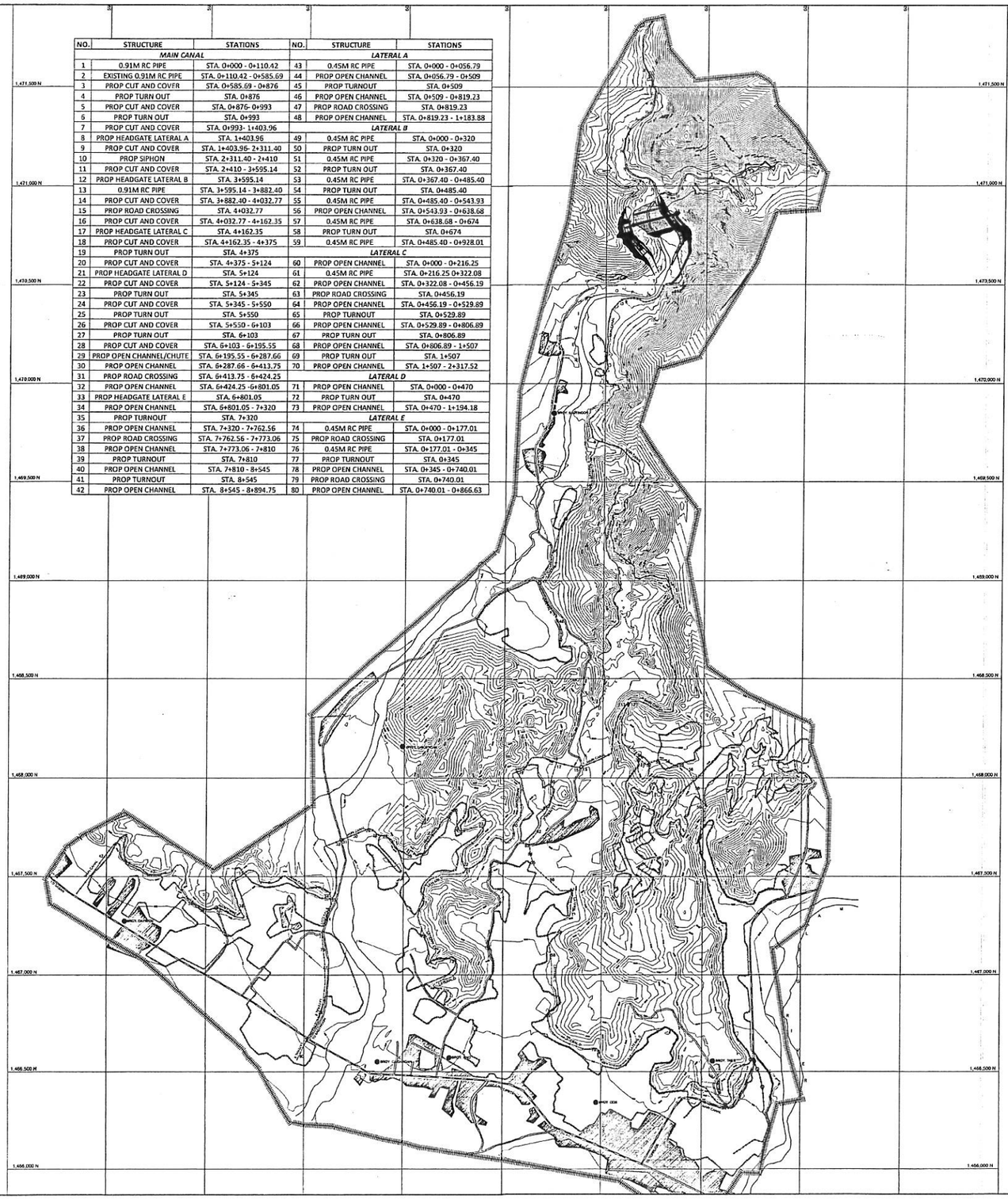
Doc. No. 123
Page No. 26
Book No. 112
Series of 2024

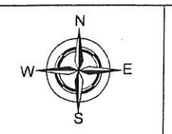
ATTY. ALFREDO L. DE LUNA
NOTARY PUBLIC
Until Dec. 31, 2025
Roll No. 29141
PTR No. 7265417 - 0[illegible]2024, Boac, Marinduque
IBP No. [illegible], Marinduque Chapter
TIN 122-387-271 MCLE No. VII-0023332 /04-14-2022
Barangay Murallon, Boac, Marinduque

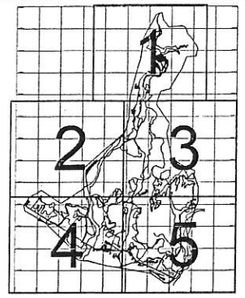
11.5 Photographs and plates of the project site

NO.	STRUCTURE	STATIONS
	MAIN CANAL	
1	0.91M RC PIPE	STA. 0+000 - 0+110.42
2	EXISTING 0.91M RC PIPE	STA. 0+110.42 - 0+585.69
3	PROP CUT AND COVER	STA. 0+585.69 - 0+876
4	PROP TURN OUT	STA. 0+876
5	PROP CUT AND COVER	STA. 0+876- 0+993
6	PROP TURN OUT	STA. 0+993
7	PROP CUT AND COVER	STA. 0+993- 1+403.96
8	PROP HEADGATE LATERAL A	STA. 1+403.96
9	PROP CUT AND COVER	STA. 1+403.96- 2+311.40
10	PROP SIPHON	STA. 2+311.40 - 2+410
11	PROP CUT AND COVER	STA. 2+410 - 3+595.14
12	PROP HEADGATE LATERAL B	STA. 3+595.14
13	0.91M RC PIPE	STA. 3+595.14 - 3+882.40
14	PROP CUT AND COVER	STA. 3+882.40 - 4+032.77
15	PROP ROAD CROSSING	STA. 4+032.77
16	PROP CUT AND COVER	STA. 4+032.77 - 4+162.35
17	PROP HEADGATE LATERAL C	STA. 4+162.35
18	PROP CUT AND COVER	STA. 4+162.35 - 4+375
19	PROP TURN OUT	STA. 4+375
20	PROP CUT AND COVER	STA. 4+375 - 5+124
21	PROP HEADGATE LATERAL D	STA. 5+124
22	PROP CUT AND COVER	STA. 5+124 - 5+345
23	PROP TURN OUT	STA. 5+345
24	PROP CUT AND COVER	STA. 5+345 - 5+550
25	PROP TURN OUT	STA. 5+550
26	PROP CUT AND COVER	STA. 5+550 - 6+103
27	PROP TURN OUT	STA. 6+103
28	PROP CUT AND COVER	STA. 6+103 - 6+195.55
29	PROP OPEN CHANNEL/CHUTE	STA. 6+195.55 - 6+287.66
30	PROP OPEN CHANNEL	STA. 6+287.66 - 6+413.75
31	PROP ROAD CROSSING	STA. 6+413.75 - 6+424.25
32	PROP OPEN CHANNEL	STA. 6+424.25 -6+801.05
33	PROP HEADGATE LATERAL E	STA. 6+801.05
34	PROP OPEN CHANNEL	STA. 6+801.05 - 7+320
35	PROP TURNOUT	STA. 7+320
36	PROP OPEN CHANNEL	STA. 7+320 - 7+762.56
37	PROP ROAD CROSSING	STA. 7+762.56 - 7+773.06
38	PROP OPEN CHANNEL	STA. 7+773.06 - 7+810
39	PROP TURNOUT	STA. 7+810
40	PROP OPEN CHANNEL	STA. 7+810 - 8+545
41	PROP TURNOUT	STA. 8+545
42	PROP OPEN CHANNEL	STA. 8+545 - 8+894.75

NO.	STRUCTURE	STATIONS
	LATERAL A	
43	0.45M RC PIPE	STA. 0+000 - 0+056.79
44	PROP OPEN CHANNEL	STA. 0+056.79 - 0+509
45	PROP TURNOUT	STA. 0+509
46	PROP OPEN CHANNEL	STA. 0+509 - 0+819.23
47	PROP ROAD CROSSING	STA. 0+819.23
48	PROP OPEN CHANNEL	STA. 0+819.23 - 1+183.88
	LATERAL B	
49	0.45M RC PIPE	STA. 0+000 - 0+320
50	PROP TURN OUT	STA. 0+320
51	0.45M RC PIPE	STA. 0+320 - 0+367.40
52	PROP TURN OUT	STA. 0+367.40
53	0.45M RC PIPE	STA. 0+367.40 - 0+485.40
54	PROP TURN OUT	STA. 0+485.40
55	0.45M RC PIPE	STA. 0+485.40 - 0+543.93
56	PROP OPEN CHANNEL	STA. 0+543.93 - 0+638.68
57	0.45M RC PIPE	STA. 0+638.68 - 0+674
58	PROP TURN OUT	STA. 0+674
59	0.45M RC PIPE	STA. 0+485.40 - 0+928.01
	LATERAL C	
60	PROP OPEN CHANNEL	STA. 0+000 - 0+216.25
61	0.45M RC PIPE	STA. 0+216.25 0+322.08
62	PROP OPEN CHANNEL	STA. 0+322.08 - 0+456.19
63	PROP ROAD CROSSING	STA. 0+456.19
64	PROP OPEN CHANNEL	STA. 0+456.19 - 0+529.89
65	PROP TURNOUT	STA. 0+529.89
66	PROP OPEN CHANNEL	STA. 0+529.89 - 0+806.89
67	PROP TURN OUT	STA. 0+806.89
68	PROP OPEN CHANNEL	STA. 0+806.89 - 1+507
69	PROP TURN OUT	STA. 1+507
70	PROP OPEN CHANNEL	STA. 1+507 - 2+317.52
	LATERAL D	
71	PROP OPEN CHANNEL	STA. 0+000 - 0+470
72	PROP TURN OUT	STA. 0+470
73	PROP OPEN CHANNEL	STA. 0+470 - 1+194.18
	LATERAL E	
74	0.45M RC PIPE	STA. 0+000 - 0+177.01
75	PROP ROAD CROSSING	STA. 0+177.01
76	0.45M RC PIPE	STA. 0+177.01 - 0+345
77	PROP TURNOUT	STA. 0+345
78	PROP OPEN CHANNEL	STA. 0+345 - 0+740.01
79	PROP ROAD CROSSING	STA. 0+740.01
80	PROP OPEN CHANNEL	STA. 0+740.01 - 0+866.63







LEGEND:

- PROPOSED HEADWORKS / DIVERSION WORKS
- EXISTING HEADWORKS / DIVERSION WORKS
- MAIN CANAL (EXISTING)
- MAIN CANAL (PROPOSED)
- LATERAL/ SUB-LATERAL (EXISTING)
- LATERAL/ SUB-LATERAL (PROPOSED)
- EXISTING MAIN FARM DITCHES (MFD OR SFD)
- MAIN FARM DITCH (PROPOSED)
- SUPPLEMENTAL FARM DITCH (PROPOSED) (ARROW PIN LOCATION SIGNIFIES AREA SERVED)
- MAIN DRAINS / EXISTING FARM DRAINS / DRAINAGE DITCHES
- MAIN DRAINS / EXISTING FARM DRAINS / DRAINAGE DITCHES
- (ARROW PIN LOCATION SIGNIFIES AREA DRAINED) LIMIT OF TURNOUT AREA
- EXISTING CANAL STRUCTURE
- PROPOSED CANAL STRUCTURE
- PIPELINE / LONG STRUCTURES (TUNNEL / SIPHON / FLUMES / CUT & COVER)
- EXISTING TURNOUT WITH MFD/SFD
- PROP. TURNOUT WITH MFD/SFD
- PROPOSED SERVICE ROAD (ALONG EXISTING MC, LATERALS OR SUB-LATERALS
- PROPOSED ACCESS ROAD
- RAILWAYS
- EXISTING NATIONAL ROAD/HIGHWAYS/ PROVINCIAL ROADS
- EXISTING BRGY ROADS/STREETS/OTHER ROADS
- TRAIL
- EXCLUDED AREA
- ROTATIONAL AREA PRESENTATION
- ROTATIONAL UNIT PRESENTATION
- LIMIT OF IRRIGABLE AREA/ PROJECT AREA
- CREEKS/RIVER/NATURAL WATERWAYS
- CONTOUR LINES

IRRIGABLE AREA (HAS) : 226

0 40 80 120 160 200 m
SCALE : NTS

REV NO.	DATE	NATURE OF REVISION	BY:	CHECKED:	RECOM.	APPROVED NIA

REPUBLIC OF THE PHILIPPINES
NATIONAL IRRIGATION ADMINISTRATION
REGION IV-B CALAPAN CITY, ORIENTAL MINDORO

ORIENTAL MINDORO–MARINDUQUE–ROMBLON
BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
BUENAVISTA, MARINDUQUE

GENERAL LAYOUT

DRAFTING	DESIGN
CADD: DJM&ZGT	DESIGNED:
REVIEWED:	CHECKED: DANIEL ANGELO M. MALABANAN
	REVIEWED: GERARDO R. PEREZ

SUBMITTED:
ENGR. RONILO M. CERVANTES
ACTING REGIONAL MANAGER

RECOMMENDING APPROVAL:
ENGR. JOSEPHINE B. SALAZAR
OFFICER IN CHARGE, DEPUTY ADMINISTRATOR FOR ENGINEERING & OPERATIONS

APPROVED:
ENGR. EDUARDO EDDIE G. GUILLEN
ACTING ADMINISTRATOR

DWG. No.: SHEET 1 OF 1

WCOPY

REFERENCE BENCHMARKS	GRID COORDINATES	
	NORTHING	EASTING
BM 1	1,470,625.73	602,165.93
NIA 1	1,470,633.22	601,942.95
NIA 4	1,470,845.10	602,206.98
NIA 5	1,470,659.43	602,147.21
NIA 6	1,470,777.34	601,387.92
DAML1	1,470,712.31	602,310.37
DAML2	1,470,741.51	602,395.54

N
W E
S

SITE DEVELOPMENT PLAN

Meters
30 0 30 60
1:1000

GOOD FOR CONSTRUCTION
NIA DATE

WCOPY #02

REV NO	DATE	NATURE OF REVISION	BY	CHECKED	RECOM	APPROVED
3						
2						
1						

REPUBLIC OF THE PHILIPPINES
NATIONAL IRRIGATION ADMINISTRATION
EDSA DILIMAN, QUEZON CITY

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
BAGTINGON BUENAVISTA, MARINDUQUE

SITE DEVELOPMENT PLAN

DRAFTING	DESIGN
CAD : MAPB	DESIGNED : RMJR
CHECKED : RMJR	REVIEWED : EMD
	SUBMITTED : EMD

SUBMITTED:
RONILIO M. CERVANTES
ACTING REGIONAL MANAGER, REGION IV-B

RECOMMENDING APPROVAL:
REYNALDO S. SALOLOY
ACTING MANAGER, ENGINEERING DEPARTMENT

APPROVED
CZAR M. SUBAIK
DEPUTY ADMINISTRATOR FOR ENGINEERING AND OPERATIONS

BAGSRIP | DWG NO. BAG - CW - 01 | SHEET 11 OF 72

11.6 Duly accomplished Project Environmental Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire

ANNEX 2-7d
PROJECT ENVIRONMENTAL MONITORING AND AUDIT PRIORITIZATION SCHEME (PEMAPS) QUESTIONNAIRE

Project Name : BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT (SRIP)
Project Location : Brgy. Bagtingon, Buenavista, Marinduque
ECC Reference No. :
Proponent :
Pollution Control Officer :
Tel. No./Fax No./E-mail :
Project Type : Irrigation Project
Project Status : Proposed

I. PROJECT CONSIDERATIONS

1.1 Size and Type

1.1.1 Size based on number of employees
Specify number of employees: **214 (During Construction)**

1.1.2 Type

ECP (in either ECA or Non-ECA)	
Non-ECP but in ECA	✓
Non-ECP and Non-ECA	

1.2 Waste Generation and Management

1.2.1 Enumerate Waste Type and Specify Quantity of Wastes generated in your facility. (Identify /Enumerate)

Category	Waste	Type		Quantity
		Hazardous	Non-Hazardous	
Air	TSP from haulage road and construction site		✓	>1000 units: MT/yr
	CO_2, SO_x, NO_x from motor vehicles	✓		100 MT/yr.
Liquid	Waste water		✓	1000 m^3/yr.
	Used Oil	✓		1 m^3/yr.
Solid	Garbage		✓	500 tons/yr.
	Construction Wastes		✓	1000 tons/yr.
	Fluorescent Tubes/Lamps	✓		50 tons/yr.

1.3 Pollution Control System (PCS)

1.3.1 Enumerate PCS or Waste Management Method Used in your facility. (Identify /Enumerate)

Category	PCS/Waste Management Method Used	Remarks
Air	Water sprinkling along haulage roads	When needed
	Proper maintenance of air pollution sources	Monthly maintenance
Liquid	Domestic sewage	Sanitary installation
	Used Oil	Proper storage of used oil
Solid	Ecological Solid Waste Management (Reduce, Reuse, Recycle)	Construction wastes will be reused or sold Residual wastes will be collected by the municipal solid waste collection system

Capitol Compound, Bangbangalon, Boac, Marinduque, Philippines
Telefax No.: (042) 332 0450
Website: http://region4b.nia.gov.ph/ • Facebook: www.facebook.com/nia4bmimaropa/
TIN: 000-916-415-142

II. PATHWAYS

2.1 Prevailing wind towards barrio or city? (mark the corresponding point) Yes ✓ No ___

2.2 Rainfall (impacts surface & groundwater pathways)

2.2.1 Average annual net rainfall:

Specify amount: **1,250.3 mm**

2.2.2 Maximum 24-hour rainfall:

Specify amount: **250 mm**

2.3 Terrain (select one and mark) Flat ____ Undulating ✓ Steep ____

2.4 Is the facility located in a flood-prone area? (select one and mark) Yes ____ No ✓

2.5 Ground Water

Depth of groundwater table (meter)	(select one and mark)
0 to less than 3	✓
3 to 10	
Greater than 10	

III. RECEIVING MEDIA/RECEPTORS

3.1 Air (Distance to nearest community)

	(select one and mark)
0 to less than 0.5 km	✓
0.5 to 1 km	
Greater than 1 km	

3.2 Receiving Surface Water Body

3.2.1 Distance to receiving surface water:

	(select one and mark)
0 to less than 0.5 km	✓
0.5 to 1 km	
Greater than 1 km	

3.2.2 Size of population using receiving surface water
Specify number: **>500**

3.2.3 Fresh Water

3.2.3.1 Classification of fresh water

	(select one and mark)
AA	***Not yet classified***
A	
B	
C	
D	

3.2.3.2 Size of fresh water body
Specify size: **No record**

Capitol Compound, Bangbangalon, Boac, Marinduque, Philippines
Telefax No.: (042) 332 0450
Website: http://region4b.nia.gov.ph/ • Facebook: www.facebook.com/nia4bmimaropa/
TIN: 000-916-415-142

Residential	✓
Commercial/Institutional	✓
Industrial	
Agricultural/Recreational	✓
Protected Area	

3.4.3 Number of affected Environmentally Critical Areas within 1 km:
Specify number: **2**

3.4.4 Distance to nearest ECA (select one and mark)

0 to less than 0.5 km	✓
0.5 to 1 km	
Greater than 1 km	

IV. ENVIRONMENTAL PERFORMANCE (FOR EXISTING PROJECTS FOR EXPANSION)

3.5 Compliance (pls. take note that this will be double-checked with PCD files)

Law	Violation (check if any)	Type (pls. specify number of times committed) STANDARD				Type of Admin Violation	Additional Remarks/ Status of Compliance
		Emission/ Effluent Discharge	Ambient	Human Impact	Admin/ ECC		
RA 8749	✓				✓	Without valid Permit to Operate	
RA 9275	✓				✓	Without valid Discharge Permit	
RA 6969	✓				✓	No Generator's ID	
PD 1586	✓				✓	Without ECC	
RA 9003							

3.6 Number of Valid Complaints

3.6.1 Citizen and NGOs
Specify number: **None**

3.6.2 Others (other Govt. Agencies, Private Institutions)
Specify number: **None**

(To be filled up by EMB Personnel)

RECOMMENDATION/S:

Assessed By: _____

Noted By: _____

ANNEX 2-7d

11.7 Initial IEC Activity Report

Republic of the Philippines
National Irrigation Administration
MIMAROPA REGIONAL OFFICE
MINDORO ORIENTAL-MARINDUQUE-ROMBLON IRRIGATION MANAGEMENT OFFICE

SCOPING AND PUBLIC CONSULTATION REPORT

Bagtingon Small Water Reservoir Project

Barangay Bagtingon, Municipality of Buenavista, Province of Marinduque

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1. BASIC PROJECT INFORMATION

Table 1. Bagtingon SRIP Basic Information

Name of Project	Bagtingon Small Reservoir Irrigation Project (SRIP)
Project Location	Barangay Bagtingon, Buenavista, Marinduque
Project Type	National Irrigation System (NIS)
Project Area	226 Hectares
Project Cost	Php 730 million
Proponent	National Irrigation Administration – MIMAROPA
Office Address	Bayanan II, Calapan City, Oriental Mindoro
Contact Person	Engr. Gerardo R. Perez
Contact Details	Mobile No: 09178495267;Landline: (043) 288-7267;Emailadd: mimaropa@nia.gov.ph
EIA Preparer/Consultant	Geographic Innovations for Development Solutions, Inc. (GRIDs) 4th Fl.,Hernandez Bldg, Grove, 4030 Los Banos, Philippines Landline: (049)5451576; Emailadd: grids.inc.ph@gmail.com Contact Person: Milben A. Bragais, EnP – GRIDs President

2. PROJECT RATIONALE

The National Irrigation Administration (NIA) and the NIAConsult Inc. (NIAC) have entered into a Memorandum of Agreement (MOA) on April 26, 1999 for the provision by the latter a Technical Assistance (TA) for the inventory and Revalidation of Data and Information already available and the Continuation of the Conduct of Feasibility Study (FS) of Small Reservoir Irrigation Projects (SRIPS). The MOA was approved on June 14, 1999 by the NIA Board of Directors on its 759th Regular Meeting under its Board Resolution No. 688-99 series of 1999.

The nationwide implementation of the Small Reservoir Irrigation Project (SRIP) is one of the major undertakings of the National Irrigation Administration under the 10-year Accelerated Irrigation Development Program of the national government. SRIPs are multi-oriented projects which require the construction of medium size dams and appurtenant structures to impound water during wet season for the primary purpose of providing year round irrigation to farm lands of farmer beneficiaries in the rural areas. Other benefits that can be derived from SRIPs include flood control, aquaculture, hydropower, domestic water supply and recreational facilities.

The small Reservoir Irrigation Project-Project Management Office (SRIP-PMO) is the implementing arm of the NIA and is responsible for the development of SRIPs (Dam Aspects) all over the country. Project activities undertaken by this office cover investigation and survey works, feasibility study (FS) and detailed design of candidate projects and construction of pipeline projects qualified for implementation.

For the provision of the TA, the SRIP-PMO has listed thirty (30) projects located in the different regions of the country for Inventory and Revalidation (Phase 1) and depending on the outcome

from these activities the TA will proceed with the continuation/completion of the FS initially for twenty (20) projects (Phase II).

Out of these twenty (20) proposed projects, Bagtingon SRIP has been selected as one of the priority projects. The selection as based on the technical soundness of the dam location, the project's readiness as to the availability of the geologic data and topographic maps and the equitable regional distribution.

3. THE PROJECT

The proposed zoned embankment dam is located just a few meters downstream from the confluence of Banlawanin and Subling River which is eventually called the Bagtingon River as it approaches the Tablas Strait. The watershed area is about 7.65 km^2 while the reservoir area is about 0.16 hectares and the total storage capacity is 0.93 million cubic meters.

The crest length of the dam is 226.65 meters while the maximum height is 27.93 meters at the riverbed with elevation 80.07 meters. Crest elevation of the dam is 108 meters.

The proposed ungated spillway of the dam is located at the left abutment. The crest length of the spillway is 25 meters and the floor elevation at the upstream is 102 meters. The height of ogee is 1 meter. The chute section, stilling basin, and exit channel are all rectangular in shape.

The proposed outlet is an intake tower with trashrack. The pipe size for diversion is 2.7 meters and for outlet is 0.9 meter. The length of the outlet is 189.4 meters.

Table 2. Project Data and Features

DETAILS	UNITS	DIMENSIONS/FEATURES
A. Main Dam		
Dam Type		Zoned Embankment Dam
Hazard Classification		PHRC - 3
Maximum Dam Height	meters	27.93
Dam Crest Length	meters	226.65
Dam Crest Width (Earth)	meters	9.00
Dam Crest Elevation	meters	108.00
Riverbed Elevation	meters	80.07
Reservoir Area	ha	0.16
Watershed Area	km^2	7.65
Maximum Water Surface Water Elevation	meters	105.51
Normal Water Surface Water Elevation	meters	102.00
Minimum Water Surface Water Elevation	meters	93.50
Inflow Design Flood (Q = 200yr)	m^3/ sec	310.77
Active Storage Capacity	mcm	0.64
Dead Storage Capacity	mcm	0.28
Total Storage Capacity	mcm	0.93
B. Spillway Structure		
Type of Spillway		UNGATED
Height of Spillway (Ogee)	meters	1.00
Crest Length (Effective)	meters	25.00
Crest Elevation	meters	102.00
Shape of Chute Section		RECTANGULAR
Length of Chute Section	meters	242.00

DETAILS	UNITS	DIMENSIONS/FEATURES
Width of Chute Section	meters	25.00
Energy Dissipator (Stilling Basin)		TYPE II (USBR)
Shape of Stilling Basin		RECTANGULAR
Length of Stilling Basin	meters	27.00
Length of Riprap (Boulder)		78.00
Bottom Width of Stilling Basin	meters	25.00
Elevation of Stilling Basin	meters	73.00
Shape of Exit Channel		RECTANGULAR
C. Outlet Works (Diversion & Irrigation Outlet)		
Design Discharge (Q = 10yr)	m^3/ sec	125.18
Type of Intake		INTAKE TOWER WITH TRASHRACK
Size of Pipe Diameter	meters	2.70 (DIVERSION), 0.90 (OUTLET)
Length of Outlet Works	meters	189.40
Water Surface At Inlet	meters	94.50
Water Surface At Start of Main Canal	meters	82.30
Diversion Outlet (Energy Dissipator)		IMPACT-TYPE

3.1 Project Location and Area

Projected location for the proposed small reservoir irrigation project is at the Northwestern part of Barangay Bagtingon, with coordinates between 13° 19' North and 121° 55' East. The barangay is under the jurisdiction of the municipality of Buenavista. It is the smallest fourth-class coastal municipality located at the Southwestern side of the island of Marinduque.

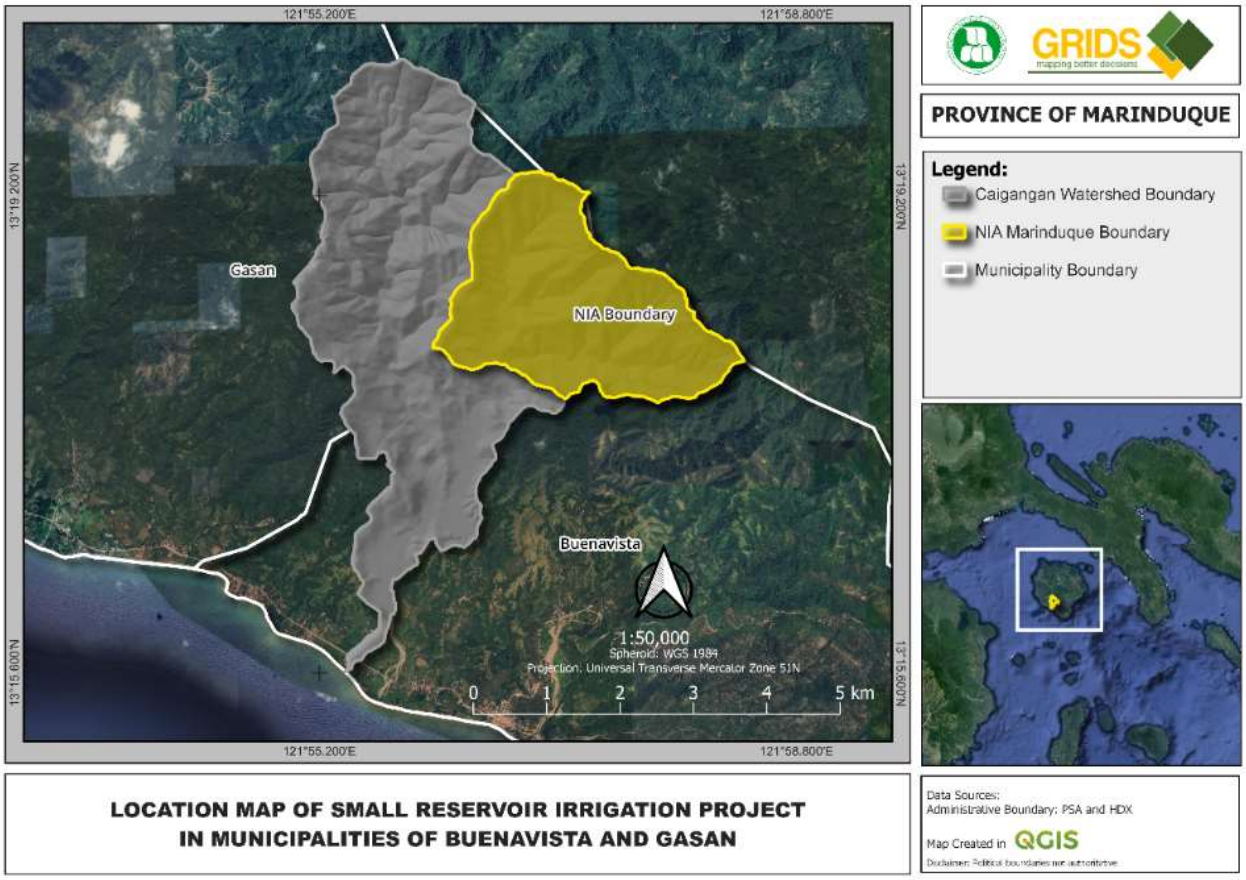

Figure 1. Location Map of the Bagtingon SRIP

A. Municipality of Buenavista

Buenavista is the smallest municipality in the province of Marinduque, which like most part of the province is generally rugged and mountainous with few alluvial plains mainly along the coast. It is located at the southwestern portion of the province. It is bounded from the north by the municipality of Gasan; on the northeast by the municipality of Boac; on the south by the municipality of Torrijos; and finally on the southwest by Tablas Strait.it is composed of 25 barangays with a total population of 23,111 (as of 2010 census). About 3,032 (13.12%) of the population line in the urban area while 20,079 (86.88%) are in the rural barangays.

Buenavista lies definitely on a flat terrain. Farming is the major source of livelihood with the highest production of rice, corn, bananas, yams, coconuts, and other root crops recorded in the province. About 4,809 hectares (59%) of the land area is devoted to agriculture. Of the agricultural land, coconut land occupies the largest portion with 3,545 hectares or74%. Aside from farming, another important means of living is fishing. Daily catch of fishes and other marine resources are being brought to the neighboring towns and as far as Lucena and Mindoro.

B. Barangay Bagtingon

The proposed Bagtingon SRIP is located in Barangay Bagtingon, Buenavista, Marinduque, one of the 15 barangays of Buenavista. It is approximately 3 kilometers from the national road and can be reached by any kind of land transportation even during the wet season. It has a total population of 1,576 (as of 2010 census) and there are no ethnic and tribal groups in the area.

Barangay Bagtingon has an aggregate area of 565.96 hectares. Of this area 315.75 hectares are agricultural land. Farming is the major means of living. Rice paddies of sizes ranging from 0.00085 to 0.4251 hectares are scattered in between highlands. About 15.0 hectares are irrigated through a communal system; 16.47 hectares are rainfed; and 2.48 hectares are planted to upland rice. About 75.26% of the agricultural area is planted to coconuts; 3.63% to corn; 1.0% to mongo; and 8.6% to other crops such as bananas, legumes, root crops and vegetables. Although the barangay is basically agricultural, the people do not totally depend on farming due to poor soil conditions, lack of irrigation water, technical know-how and farm capital. Another promising source of income, which is are but highly profitable, is butterfly culture.

There is an existing primary and secondary school in the barangay but most families cannot afford to send their children to college in Boac and outside Marinduque due to poor economic condition in the area. The illiteracy rate is 24%.

More than half of the barangay population are favorable to the proposed small reservoir irrigation project in order to bring changes/improvements in their usual cultural practices and ultimately, agricultural development in the area. On the contrary, people who are against the project fear of natural calamity particularly flash flood that may be caused by dam construction.

The Bagtingon SRIP proposed service area of 301 hectares are all arable. There are about 101 hectares of paddy rice land, which is all classified 1R. Class 1R soils are located in Barangays Bagtingon and Caigangan in Buenavista. The soil types under this class are all clay, which, when planted to rice will presently give the highest financial return.

C. Existing Infrastructure

1. Irrigation Facilities

The Bagtingon Communal Irrigation System is being operated and maintained by a small group of farmers from Bagtingon. It covers a total area of fifteen (15) hectares, services by a concrete pipe culvert 200 meters long and a concrete lined canal 1.48 kilometers long, emanating from the head gate of the diversion works. The Bagong Pag-asa System which has a service area of 25 hectares and Malbog System with a service area of 60 hectares are sometimes not serviceable due to the drying of the streams that provide water to these areas. To augment water shortages during the wet and dry seasons, individual farmers installed a number of shallow tube wells at strategic locations.

The total area planted during the wet season is 100 hectares, whereas during the dry season only 70 hectares is for palay production and the remaining 30 hectares is for crop diversification.

3.2 Project Facilities/Components

A. Storage Dam

1. Dam Location and Type

The dam will be a zoned embankment type that is approximately 30-m high, with 217.22 m long and 9 m wide crest. The embankment slopes for upstream and downstream will be 3.0:1.0 and 2.5:1.0, respectively.

2. Freeboard

The normal water surface is at El. 110 and the total freeboard is 5 m to bring the dam crest at El. 115 m. The freeboard was computed based on MC 111 s. 2019 Nia General Guidelines and Criteria for the Planning, Design, Construction, Operation and Maintenance of Reservoir Dams.

B. Spillway and Appurtenances

1. Spillway Location and Type

The proposed Side-Channel spillway of the dam is located at the right abutment. The width of the spillway is 30 m and the length from the centerline of the ogee up to the end sill of the stilling basin is 248.26 m. The spillway crest is a straight ungated ogee crest-side channel type. The normal water surface elevation is 110 m and the maximum water surface elevation is 112.96 m. Energy dissipator is to be placed at the end of the spillway; chute blocks, stilling basin and dentated sills. The spill is designed with a return period of 200-year flood, which is 310.98 m^3 per second.

C. River Diversion Structure and Cofferdam

1. Diversion Structure Location and Type

The outlet works structure shall also serve as the diversion conduit during construction. The design discharge for the size of the conduit is based on the 5-year return period, which is 139.34 CMS and maximum water surface elevation of 100.54 m. The number-size of the

concrete conduits is 2-1.70- m diameter with a length 195.38 m and cofferdam set at elevation 101 m.

2. Irrigation Outlet Works

The other conduit will be modified for as part of the irrigation outlet works by providing transition pipe from 170 m to 40 cm as part of the sleeve valve dissipator with 2 control valves for operation and maintenance purposes.

3. Cofferdam

The cofferdam will regulate the flow of river to the diversion conduit. It consists of homogenous materials with slopes 3.0:1.0 and 2.5:1.0 for upstream and downstream, respectively. The cofferdam crest is approximately 136 m long and 6 m wide at elevation 101 m.

D. Irrigation Network

The main canal has a total length of 5.03 km while the lateral canal has a total length of 14.12 km with a service area of 226 ha. Irrigation development involves the construction of irrigation facilities such as canal structures, on-farm facilities, drainage system and service roads.

1. Design Standard

The layout and design of irrigation facilities conform to the NIA accepted criteria, which are:

a. The shape of concrete-lined main and lateral canals is rectangular. Farm ditches and farm drains are trapezoidal with side slope of 1.5 horizontal to 1.0 vertical.

b. Canals should have at least 20 m/ha intensity. Similarly, the number of canal structures will depend on the topography.

c. Service road would be provided on one bank of the canal at the side where the service area is located. Gravel surfacing would be 0.20 m thick.

d. On-farm facilities have an intensity of 40 m to 60 m per ha for main and supplementary farm ditches.

e. Existing waterways/creeks that will adequately drain rain water are considered project drains.

2. Irrigation Network Layout

The proposed main canal has a discharged capacity of 0.4271 CMS. It is to convey water to irrigate about 226 hectares, 5.03 km of main canal, two (2) lateral canals and two (2) sub lateral canals having an aggregate length of 14.12 km will be constructed. Irrigation and drainage facilities would likewise be provided.

E. Drainage Network

1. Drainage System

The major drainage system within the service area of the proposed project consists of rivers and creeks dissecting the service area. Together with the natural drainage creeks, they function as main, secondary and tertiary drainage channels. Farm drainage ditches have been constructed at farm level; however, many of these are now being used as extension of the planting area.

Most of the creeks remain in its natural condition having heavy growth of aquatic vegetation. These vegetations reduce the creek flow capacity. Siltation is also noticeable in the downstream portion.

2. Drainage Design

The drainage network design is based on the following criteria:

1. All drainage channels are proposed for improvement and construction shall have side slope of 1:1 or flatter depending on the soil conditions.

2. The minimum and maximum velocity shall be 0.40 m/sec and 1.20 m/sec, respectively.

3. The discharge shall be determined by computing the velocity using Manning's Formula and adopting the value of 0.04 for the coefficient of roughness.

4. To facilitate operation and maintenance work, one embankment should be constructed wide enough, utilizing the excavated materials from the channels, so that it can be used as a roadway/dike.

Except for farm drains, which will be designed and constructed to avoid crop damages resulting from pondage of excessive rainfall and to drain the paddies before harvest time, no other drainage facilities will be provided in the project's service areas. The farm drain will convey flows to the secondary drainage discharging into the main drains or connected to the natural waterways. Only desilting and widening of most of the rivers and creeks are considered in the cost estimates of drainage scheme.

3.3 Accessibility of the site

The proposed dam axis is accessible by 4x4 vehicles followed by some hiking. Travel time from Manila to Buenavista is 8 hours; including a 3-hour ferryboat ride; and an hour ride from the town proper.

3.4 Project Benefits

1. Irrigation
2. Aquaculture
3. Flood Control
4. Hydro-power
5. Domestic Water Supply
6. Recreational Facilities

Other Benefits:
1. Create employment opportunities
2. Improve the living environment and of the farmers.

3.5 Project Cost

The project cost estimates are based on the quantities generated from the preliminary design, assumptions, and unit prices of each related item of work.

Unit Price: The unit price of each work/pay item as enumerated in the Bill of Quantities is composed of Direct Cost and Indirect Cost.

Direct Cost: Direct cost comprises the cost of labor, materials, and equipment incorporated into the work. All direct cost items were separately analyzed and evaluated for each item of work.

● Labor costs were based on the Daily Minimum Wage Rate as provided by Wage Order No. IVB-18 for Region 4B issued by the Department of Labor and Employment. It includes salaries/ wages and fringe benefits such as vacation and sick leaves, benefits under the Workmen's Compensation Act SSS, Phil Health contributions, 13th-month pay, bonus, etc.

● Material costs were based on the prevailing prices for the year 2017 which includes the cost at source, processing, hauling, and handling.

● Equipment Rental Cost was based on the 25th Edition of the Association of Construction Equipment Lessors (ACEL) Equipment Rental Rates Guidebook.

Indirect Cost: Indirect cost was based on the MC No. 64 series of 2016. It includes the overhead expenses, contingencies, miscellaneous expenses, contractor's profit margin, and the VAT component

The total project cost of Bagtigon SRIP based on the above criteria is P877.002 million.

3.6 Project Duration

The operation of this project is expected to commence once all permits and clearances are already secured for smooth implementation of the project.

A. Construction Schedule

The construction of the Bagtingon SRIP in Buenavista, Marinduque is scheduled for 5 years. This is in line with one of the established criteria by SWIM that dam with height more than 15 meters shall have a construction period of five (5) dry seasons. The major components include in the projects are the dam, spillway, outlet works and irrigation.

The start of project implementation is the mobilization of staff and heavy equipment in January. Preparatory activities such as survey, construction of camp facilities, construction of permanent and temporary access roads and other utilities shall immediately follow. Upon completion of the preparatory.

Works especially in survey and ROW negotiations, the construction of the civil works shall then proceed. Each major component shall have a separate construction crew and heavy equipment. The sequence of activities for each major component in relation with the others is discussed hereunder.

1. Dam

The clearing and grubbing and stripping shall start before the onset of the rainy season. Core trench excavation shall follow simultaneously at Sta. 0+000 at the left abutment slopping towards the river at Sta. 0+100 and at the right abutment, Sta. 0+325, and likewise sloping towards the river. The river section shall be continued as the last stretch. Upon attaining the design elevation and trench channel section, drilling and grouting shall immediately follow.

The start of this activity shall fall at the start of the rainy season and should be finished at the end of the first year.

In January of the 5th year, the original flow of the river shall be diverted to the outlet works. All the other components such as intake, value house and stilling basin should be completed by then. Likewise, the cofferdam with the crest elevation of 101 meters should have been completed. The closure dam shall be constructed during this month and continued up to the crest elevation of the dam at 115.00 m. Until November of the 5th year, which is the start of the dry season.

2. Spillway

The foundation excavation and channel formation for the spillway shall start simultaneously with the dam core trench excavation in March of the 1st year. Preparatory works such as filter drains, anchor bars, reinforcing bars and formworks shall follow immediately after attaining the designed channel floor elevations. Concreting of the spillway chute down to the stilling basin shall then follow. However, the completion of the stilling basin should be given priority and should be given priority and should be finish before the start of the rainy season in May of the 2nd year. This is to avoid the problem of dewatering.

3. Outlet Works

The foundation excavation for the pipe conduit shall also start in March of the 1st year. Preparatory works should be ready for the start of concreting of the pipe conduit. Simultaneous activities shall be undertaken at the intake tower and stilling basin.

River diversion shall be conducted in December of the 2nd year, so it is of prime importance that the activities at the outlet works be finished beforehand.

4. Irrigation and Drainage

The construction of the irrigation and drainage works shall start immediately after having cleared the ROW problems and also after having competed the construction drawings. The conveyance canal should be completed before the start of the rainy season while the canal related structures should be completed at the end of the rainy season.

The construction of the on-farm facilities shall start in September or earlier depending on the convenience and workability of the area. Farm ditches running parallel to the main canal should wait upon the canal completion. Drainage ditches and structures related to the on-farm facilities shall also be constructed after the end of the rainy season.

The irrigation and drainage component is expected to be finished in October of the 5th year in time for the test run and completion of the project within the prescribed duration of 5 years. The construction schedule in bar chart form of Bagtingon SRIP is presented below.

5. Workable Days of Construction Work

It is known that construction of earth fill type dam is quite affected by the meteorological and seasonal condition especially by rainfall. Actual workable days for the embankment works vary with the kind of the embankment various kinds of materials at the same elevation. Delay of impervious zone embankments due to bad weather condition shall cause the delay of the other zones of the dam embankment. Consequently, planning of construction works should be made

taking into consideration the workable days, which would be affected by the seasonal conditions.

6. Construction Equipment

Necessary construction equipment's for the construction of the dam and the appurtenant structures and irrigation facilities are estimated based on the expected workable days, construction schedule and the quantities involved per item of work. Number of hours per day for the equipment operation is 7 hours considering the adjustment of equipment before operation.

7. Construction Supervision Organization

The proposed construction organization for the Bagtingon SRIP is patterned in the existing set-up of the SRIPs under construction. A task force at the project site level is handling the supervision, which is directly responsible to the SRIP-PMO. This task force, which supervises the contracts, consists of a Resident Engineer, Office Engineer, Material Testing Engineer, Construction Engineer and Geologist (on call basis).

The Provincial Irrigation Office handles the Right-of-Way acquisition as well as the force account works if there are any. They also monitor the progress of project implementation.

Table 3. Construction Schedule for Year 1

Work Description	Year 1											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PRE-CONSTRUCTION												
• Right of Way and Damages												
• Mobilization and Camp Facilities												
• Access Road												
• Reservoir Clearing												
DIVERSION AND CARE OF RIVER												
DAM FOUNDATION												
• Clearing and Grubbing												
• Stripping												
• Core Trench Excavation												
• Drilling and Grouting												
DAM EMBANKMENT												
• Impervious Clay												
• Random Fill												
• Filter and Drains												
• Rock Toe Drain												
• Boulder Riprap												
• Grass Sodding												
SPILLWAY CONSTRUCTION												
• Foundation Excavation												
• Filter and Drains												
• Concrete Class "A"												
• Boulder Riprap												
• Structure Backfill												
• Grouted Riprap												
OUTLET WORKS												
• Foundation Excavation												
• Concrete Class "A"												
• Structure Backfill												
• Grouted Riprap												
HYDRO-MECHANICAL WORKS												

Work Description	Year 1											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
• Steel Pipe												
• Gate Valves, Slide Gates												
• Dam Instrumentation												
IRRIGATION AND DRAINAGE												
• Clearing and Grubbing												
• Canal Embankment												
• Canal Excavation												
• Concrete Class "A"												
• Pre-cast Concrete Pipes												
• Structural Backfill												
• On-farm Facilities												

Table 4. Construction Schedule for Year 2

Work Description	Year 2											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PRE-CONSTRUCTION												
• Right of Way and Damages												
• Mobilization and Camp Facilities												
• Access Road												
• Reservoir Clearing												
DIVERSION AND CARE OF RIVER												
DAM FOUNDATION												
• Clearing and Grubbing												
• Stripping												
• Core Trench Excavation												
• Drilling and Grouting												
DAM EMBANKMENT												
• Impervious Clay												
• Random Fill												
• Filter and Drains												
• Rock Toe Drain												

Work Description	Year 2											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
• Boulder Riprap												
• Grass Sodding												
SPILLWAY CONSTRUCTION												
• Foundation Excavation												
• Filter and Drains												
• Concrete Class "A"												
• Boulder Riprap												
• Structure Backfill												
• Grouted Riprap												
OUTLET WORKS												
• Foundation Excavation												
• Concrete Class "A"												
• Structure Backfill												
• Grouted Riprap												
HYDRO-MECHANICAL WORKS												
• Steel Pipe												
• Gate Valves, Slide Gates												
• Dam Instrumentation												
IRRIGATION AND DRAINAGE												
• Clearing and Grubbing												
• Canal Embankment												
• Canal Excavation												
• Concrete Class "A"												
• Pre-cast Concrete Pipes												
• Structural Backfill												
• On-farm Facilities												

Table 5.Construction Schedule for Year 3

Work Description	Year 3											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PRE-CONSTRUCTION												
• Right of Way and Damages												
• Mobilization and Camp Facilities												
• Access Road												
• Reservoir Clearing												
DIVERSION AND CARE OF RIVER												
DAM FOUNDATION												
• Clearing and Grubbing												
• Stripping												
• Core Trench Excavation												
• Drilling and Grouting												
DAM EMBANKMENT												
• Impervious Clay												
• Random Fill												
• Filter and Drains												
• Rock Toe Drain												
• Boulder Riprap												
• Grass Sodding												
SPILLWAY CONSTRUCTION												
• Foundation Excavation												
• Filter and Drains												
• Concrete Class "A"												
• Boulder Riprap												
• Structure Backfill												
• Grouted Riprap												
OUTLET WORKS												
• Foundation Excavation												
• Concrete Class "A"												
• Structure Backfill												
• Grouted Riprap												

Work Description	Year 3											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
HYDRO-MECHANICAL WORKS												
• Steel Pipe												
• Gate Valves, Slide Gates												
• Dam Instrumentation												
IRRIGATION AND DRAINAGE												
• Clearing and Grubbing												
• Canal Embankment												
• Canal Excavation												
• Concrete Class "A"												
• Pre-cast Concrete Pipes												
• Structural Backfill												
• On-farm Facilities												

3.7 Photo Documentation of Project Site

The pictures below show the present status of the project site in Barangay Bagtingon, Buenavista, Marinduque. These were taken in November 2021.

Figure 2. Aerial shot of the project site

Figure 3. Downstream from the convergence of Banlawanin and Subling River

3.8 Proposed Dam

Figure 4. Proposed structure of Bagtingon SRIP

3.9 Project Impact Areas

Based on the above project components, impact areas are grouped into two categories; the direct and indirect impact areas. The direct impact areas are those areas primarily affected by the project where significant changes from the current environmental condition is expected. While, indirect impact areas are those that are moderately influenced by the project.

A. Direct Impact Areas

a. Dam site
b. Access road to the proposed dam site
c. Service area both the existing, where improvements of facilities/irrigation canals will be undertaken, and the new service area where new irrigation facilities will be constructed.
d. Main Canal alignments

B. Indirect Impact Areas

a. Water source catchment
b. Irrigation waste water drain areas (downstream the service area)
c. Adjoining barangays and municipalities from the project area

3.10 Project Alternatives

The design of a zoned embankment dam should have a safe and economical structure. Thus, the following factors for alternatives are important to be considered:

- The embankment slopes should be stable under all kinds of conditions during the construction and operation phases.
- The spillway and outflow parts slopes should be stable under the operational phase.
- The water in the reservoir and the wall of the embankment should not overstress the foundation.
- The foundation must be water tight. If there will be fissure, pressure grouting should be immediately done.
- The seepage flow through the foundation, embankment, and abutments should be properly controlled to prevent sloughing, piping, or material removal.
- The height of the dam should be enough to avoid overtopping by waves and also include allowance for settlement of embankment and foundation.
- The spillway and the outflow parts should be enough to avoid overtopping and ensure hydrological safety of the dam.
- The spillway should safeguard the hydrological safety of the dam.
- The hydrology of the river should fully impound the reservoir in a certain period of time. Also, the water flow during dry season should be enough to sustain the reservoir.
- The catchment area should not be too degraded.

3.11 Preliminary identified environmental impacts and recommended mitigating measures

The impacts that are generally associated with various components of the project development were classified into three (3) project phases, namely: pre-construction, construction and operation phase. Pre-determined project impacts are discussed below with the corresponding recommended mitigating measures to abate adverse impacts and enhance positive impacts during the different phases of the project.

A. Pre-Construction Phase

The impacts associated with the pre-construction phase may have been insignificant in physical and biological aspects. Pre-construction activities include land survey to determine exact location and alignment of the canal networks, location and location of appurtenant facilities. However, significant impact is more on the apprehension of the locals (directly affected) that the project will significantly affect their economy with the generation of parcels of cultivated lands, crops and other sources of income.

Among the anticipated impacts are generation of parcels of agricultural land, and crops for the construction of the dam, access road, inundation for the reservoir and main canal alignments. On the other hand, anticipated positive impacts of the project are provision of adequate supply of irrigation water (whole year round) to rice paddies downstream.

1. Impact to Land

According to the initial assessment, an estimated area of 22.2 hectares of land will be generated for the Right of Way (RoW) of the project covering the dam site, access road, reservoir, and main canal alignment. Please note that the dam site and portion of the reservoir is claimed under private ownership or with tax declaration according to interviewed key informants. The rest is part of the Marinduque National Park (under the National Integrated Protected Area System (NIPAS)). Only an estimated 15.6 hectares will be subjected for cost estimation since the approximate 4 hectares is within the Protected Area- Public land, and remaining 1.6 is part of the river channel which is considered as part of the public domain.

2. Impact to People and Downstream Community

Implementation of the proposed project will affect economic source of some 17 upland cultivators upstream the proposed dam site. It may also adversely affect the barangay water system which may inundate two domestic water pipe lines (2 and 3 inches diameter steel pipelines) of about 1.5 kilometer long and 1 concrete reservoir tank (5 m x 5 m x 2 meter dimension). Though, source of the water system is not covered by inundation - reservoir area. Hence, it is necessary to include in the estimated project cost the replacement/ relocation of the pipeline alignment and construction of new spring box. One house structure adjacent the proposed dam site is likely be affected by the construction of access road, irrigation facility and for safety reasons. The house structure is made up of semi-permanent materials.

Recommended Mitigating Measures

Information Education Campaign (IEC)

During the pre-construction phase, IEC in the community about the project through coordination with the LGU's, PO's, NGO's, barangay officials and other concerned community groups should be conducted. In this way the proposed project will be formally introduce to them to avert negative perception of the locals towards the project.

Formulate Equitable Compensation and ROW Acquisition Scheme

The Land Acquisition and Resettlement Plan (LARP) should be formulated to evaluate proper compensation and legal basis of payments of affected families, house structures, land, improvements and crops in the area, see ANNEX A.

To ensure availability of required resources and in compliance to applicable laws/policies on ROW acquisition. Cost may incurred should be included in the overall project cost. Though, in some instances not all of this land may need to be compensated, some of the beneficiaries may opt to donate in exchange of conditions that they will be prioritized for hiring during construction.

For the affected trees, DENR Memorandum Order 2012-02 will be adopted for this matter. Naturally grown trees cut will be replace with 100 tree seedlings and 50 seedlings for the planted trees. Close coordination with the PASu will be undertaken to seek their guidance relative to the disposal and planting of seedlings.

Conduct Total Inventory of Trees and Crops Within the Project RoW

Inventory of crops and tree species at the Project RoW must be included in the succeeding survey parallel to the detailed design to cover other improvements not included in the initial assessment especially at the proposed main and lateral canals. Result of the survey will also be used for the application of cutting permit to the DENR (forest trees, tree crops and fruit bearing trees) and PCA (coconut) as the issuing agency of cutting permits with reference to the revised PD 705 and RA 8048.

Secure and Consolidate Necessary Permits

Prior to construction stage all necessary permits should be procured. Among these are the Environmental Compliance Certificate (ECC) (including the borrow area), Tree Cutting Permit from DENR with the indorsement of the PAMB, Certificate of Non-Overlap (CNO) from the National Commission on Indigenous People (NCIP) Region 4B, Coconut Cutting Permit from the Philippine Coconut Authority (PCA), Clearance from the Protected Area Management Board (PAMB)-granted 2019.

B. Construction Phase

1. Generation of Sediments in the River Channel

During construction, earth work activities may contribute to soil erosion by altering the topography, excavation at the dam site, access road, borrow area, and canal networks.

Removal of vegetation and operation of heavy equipment during site clearing will increase volume of soil erosion rate and eventually contribute to the siltation of downstream channel.

Recommended Mitigating Measures

Development of erosion control plan that will involve proper timing of construction activities, site protection and rehabilitation measures that address soil erosion as a result of construction activities, good operating procedures should also be adopted by the contractor. Sediments must be contained within the construction site through sediment basins or other retention structures such as rock dikes, silt fence, siltation pond and other engineering mitigating measures.

These should be stipulated in the contractor's contract as well as the conditions that will ensure environmental protection which should be observed during construction and this will be the contractor's responsibility.

2. Increase Level of Noise Pollution

Ground preparation and clearing activities, construction works, hauling of materials and other related activities would undoubtedly generate noise in the area. The noise generators will be the heavy equipment, such as bulldozers, pay loaders, rollers, dump trucks, etc. Primary impacted areas by noise is the settlement near the proposed dam site, access road, main canal and service roads.

Recommended Mitigating Measures

To mitigate noise pollution during the construction, it is recommended that contractor must use properly maintained heavy equipment's fitted with appropriate mufflers or silencers. Likewise, work schedule should be limited during daytime to avoid disturbance in the surrounding/nearest community. Operators must be properly oriented in using heavy equipment, avoid excessive pumping on the fuel and use of horn. Set up warning signs and speed limits in populated areas. Select routes that will avoid populated areas as much as possible. Put temporary barriers along the construction side and access roads such as tarpaulin to deflect/and or buffer direct impact of noise to immediate communities and population.

3. Increase Dust Particulate/Air Pollution

Prior to the construction, the area will primarily be cleared off from vegetation. During the process, there is a greater possibility of loosened earth materials to get airborne especially during dry and windy days. During construction and quarrying, earth movement that involves hauling, transport of materials, stock piling of excavated earth materials and rocks will raise the concentration of dust. However, this condition is temporary and only for a short period of time during land preparation and construction phase.

Recommended Mitigating Measures

To mitigate problem on dust generation during construction phase, the contractor should ensure access roads and other dust generating areas would be frequently sprayed with water with the use of water truck/s. It is also important to always observe slower speed of vehicles in dusty areas that are close to communities/settlement sites.

4. Increased in Generated Waste at the Project Site

Waste generated during construction, among others are: (a) domestic waste and construction waste from work camps, and (b) hazardous waste from the work sites. Thus, improperly managed wastes could accumulate into unsightly piles of small dumpsites. Aggregates of unmanaged wastes become a breeding ground for pests and other vectors that contributes to sanitation problems. Leachate from these dumps could contaminate local sources of groundwater and surface water bodies if not managed.

Recommended Mitigating Measures

The contractor should implement proper waste management. Installation of Material Recovery Facility (MRF) for waste segregation and compost pits must be provided in the construction and workers campsite/bunkhouses.

Waste treatment facilities such as septic tanks or portable toilets must be installed on site during construction. The contractor should ensure that no untreated human waste should be allowed to enter any water course that will affect downstream water quality, aquatic environment, and human health. Change in aesthetic character of the area can be minimized by disposing of excavated materials as soon as possible to designated temporary dump sites. Likewise, the contractor must undergo proper clean up and abandonment of the site after completion of the project, such as removal of temporary bunkhouses, stock yard and other unnecessary structures upon completion of the project.

5. Change in Landscape

Construction of the irrigation facilities and development of road networks will cause permanent change in landscape. While development of temporary camps/ bunk houses and equipment stock yard, temporary dumpsite of waste materials and spoils that will be generated during the construction phase will cause temporary changes relative to landscape and topography.

Recommended Mitigating and Enhancement Measures

Confined land clearing/removal of vegetation cover within the construction area. Select strategic area for the establishment of bunk houses, materials stockyard and spoil depot away from bodies of water, highly sloping area and other considerations. These is to minimize degradation of the landscape, instead visual acceptability of the area will be improved.

6. Potential Contamination of Soil and Water (groundwater and surface water) From Oil and Grease Wastes

During construction, operations of heavy equipment’s and use of fuel and lubricants can’t be avoided. Waste from machineries such as oil and grease products will find their way to the lower areas primarily to the creeks/drain channels, chances of seepage to the ground water and eventually to adjacent farms if not handled properly. Excessive release of mishandled wastes could possibly endanger the ground water as source of domestic and potable water of the immediate communities.

Recommended Mitigating Measures

Proper sanitation and storage of oil and grease. Spill of oil and grease from the equipment maintenance area must be avoided through proper house- keeping, regular inspection of working areas, proper maintenance and provision of waste containment area for filters and other consumables. Also, contractors should ensure that fuel and oil storage areas should be located 20 meters away from any water courses and provided with inceptor traps so that accidental spills do not contaminate the site. Contained waste and used engine oils must be subjected for recycling by giving it to the Certified Collection Centers (CCC) nearest to the project area.

7. Inflow of Workers to the Project Area

During construction, temporary increase in population into the host barangay is expected due to entry of workers from nearby barangays and municipality. Some of the workers will stay at the temporary camp sites/bunk houses which contribute to increase in demand for local commodities and domestic supplies. Entry of some migrant workers could also bring economic advances to residents through development of small businesses like stores, canteen, transportation services and other more. Impacts are also expected to occur in settlements near the construction site.

Recommended Mitigating Measures

During construction qualified residents of host communities must be given priority in the recruitment. This must be coordinated with the LGU's and Barangay officials to enhance community appreciation of the project and to provide employment and income to the locals living within and nearby the project area.

8. Loss of Vegetation Cover

During construction, removal of vegetation cover to give way for the construction of the access road, dam and facilities, main canal and appurtenant structures will result to the permanent removal of some vegetations. Loss of vegetation cover may affect biodiversity of the area.

Recommended Mitigating Measures

Confined clearing and construction activities to specified project ROW limits. Likewise, it is necessary to prohibit workers to engage in collection or hunting of any flora and fauna species within and nearby the project area. Enhancement of vegetative cover of the project buffer zone including the rim banks is necessary. This is in support to the National Greening Program (NGP) and in reference to DENR Memorandum Order no. 02 series of 2012. Initial area to be included in the project cost is estimated at Php 900,000.00 (or at Php 45,000.00 per hectare) that will cover an initial area of 20 hectares for the reforestation and agroforestation of project buffer zones. This amount includes the cost of labor, seedlings, site preparation, hauling and planting.

9. Change in Lifestyle and Economic Activities

During construction stage of the project, local population may have certain change in lifestyle and economic activities due to employment and possible opening of small businesses on site

that will cater other needs of the workers. Among of the expected products and services are foods, snacks, clothing and other basic necessities of the workers.

Recommended Enhancement Measures

The contractor will encourage in some ways its workers to support local businesses by patronizing local products. Regular payment of workers salary will enhance micro-finance flow.

10. Threat to Public Health

Influx of workers on site from nearby communities could increase possible spread of communicable diseases and accumulation of domestic wastes on site. In most countries where there are risks to health from vector borne diseases such as malaria, lymphatic filariasis, encephalitis, onchocerciasis, schistosomiasis, there is an awareness of the possibility that water development projects may have an impact on vector populations and human health. This is particularly true of irrigation schemes, which tend to increase opportunities for human/water/vector contact in addition to the creation of habitats well suited to vector production.

Recommended Mitigating Measures

To protect health of workers and host community/ies against possible spread of communicable diseases, routine medical check-up to workers must be undertaken. Observe disinfection of water logged areas and provision of drainage facilities to avoid creation of disease vector's habitat. The contractor must also provide a first aid kit and availability of health worker and safety officer to attend to any immediate health needs of workers and in case of untoward incidents.

C. Operation Phase

1. Change in Visual Quality

After construction, visual quality at the project site specifically at the diversion weir, intake, main canal and service area will change in visual quality and landscape.

Recommended Enhancement Measures

There should be a regular maintenance and monitoring of the facilities, and structures to sustain the operation and functionality of the irrigation system. This is to be able to maximize the benefits and enhance development of idle lands into productive lands.

2. Unregulated Use and Mishandling of Pesticides and Fertilizers Leading to Surface and Groundwater Contamination

Increase in cropping intensity in the project area will also result in certain increase use in amount of pesticides and fertilizers. Mishandling and unregulated use of agro-chemicals could potentially expose the surface and ground water resources to contamination within the service area. The leaks from pesticide containers due to improper handling, safe keeping, disposal and accidental spills of chemicals can contaminate the surface water, and even the ground water through infiltration. Contamination of aquifer will pose threat to health for those who use and drink water from contaminated wells.

Likewise, contamination of water sources is detrimental to fresh water ecosystem, farm animals, and population downstream the service area.

Recommended Mitigating Measures

Collaboration with the Municipal office of the Department of Agriculture is necessary. Farmers adoption of Integrated Pest Management (IPM) and ecological farming of the Department of Agriculture (DA) shall be encouraged to minimize toxicity and accumulation of residues from pesticides and fertilizers resulting to water pollution. Farmers should be guided appropriately and scientifically in handling, applying of pesticides and fertilizers, as well as during cleaning and disposal of excess chemicals. These measures will reduce the contamination of groundwater and surface runoff, which is among of the possible sources of water pollution in the project area and adjacent water bodies if not mitigated. In this way, downstream users of the irrigation waste water will not be compromised.

3. Potential Conflict on Water Distribution and Usage

During the operational phase potential conflicts in water supply distribution and usage for downstream users will be among of the common problems. If proper operation of irrigation system to optimize utilization of water as well as agreement to user's rights on water distribution and schedule of usage is not undertaken will deprived other farmers that become a source of conflicts among farmers.

Recommended Mitigating Measures

Prior to the operation phase, the Irrigators Association (IA) must formulate agreement on water distribution and usage to avoid any conflict on water supply. Includes adherence to schedule of water supply, strict monitoring of usage and proper operation of irrigation system to optimize utilization of water especially during dry months which irrigation water is highly in demand.

4. Availability of Adequate Irrigation Water During Dry Months

When the irrigation system is already in place and operating, delivery of adequate irrigation water to rice paddies will be provided and enhance the cropping intensity.

Recommended Enhancement Measures

Management of the irrigation facilities is important to optimized utilization of the irrigation services. Among of the strategies includes; better irrigation scheduling, improving canal operation for timely deliveries, supply irrigation water when most crucial to crops yield, adoption of water-conserving tillage and preparation methods, better maintenance of canal and equipment and recycling drainage and tail water. Also, consider drainage canals in the design of the project to avoid impact of flooding during the operation. Flooding in the low lying areas in the service area possibly occurs due to poor drainage and low elevation. Implementation of a good drainage design will avoid flooding to low lying areas downstream.

5. Enhance Agricultural Production and Income of the Farmers

During operation there will be an expected gradual change in lifestyle and economic standing of the farmers due to increase in agricultural productions. There will be also an increase in demand for farm labor and agricultural support services. Hence, economic condition of the

locals will be enhanced which entails to higher revenue of the general populace within the covering barangays.

Recommended Enhancement Measures

Provision of irrigation water to some agricultural farm lands will increase crop productions and income of the farmers. There will be an increase in farm labor demand, farm inputs and agricultural support services. Strict adherence to irrigation policies and approved cropping pattern and calendar are important. It is also essential the conduct of regular maintenance of drainage systems for the efficient and effective delivery of irrigation services.

4. INFORMATION EDUCATION AND COMMUNICATION CAMPAIGN (IEC)

Based on the guidelines on public participation under the Philippine Environmental Impact Statement (EIS) system DAO 17 – 15, the identified stakeholders shall be involved and participate in different stages of the EIA process. They must be oriented early about the project through Information, Education, and Communication (IEC). The IEC activity is one of the requirements to be conducted before the public scoping. In this activity, the EIA team should conduct an orientation to inform the about the project, the proponent, and the different stages of the scoping process.

Before the conduct of the IEC activity, the project location was visited and its scope was identified to help in determining the stakeholders to be involved. After identifying the stakeholders, letters of request to conduct the IEC for the Bagtingon Small Water Reservoir Project were sent. The invitations were sent to the Provincial Office of Marinduque, Municipal Office of Buenavista, and Barangay Office of Bagtingon. It was assured in the letter that their participation is completely voluntary and their concerns and suggestions will only be used for the project. Below is the list of stakeholders invited for the activity.

Table 6. Identified stakeholders for the IEC

Provincial	Municipal	Barangay
Provincial Administrator	Mayor's Office	Barangay Officials
Provincial Planning and Development Officer	Vice-Mayor Office	Purok Leaders
Provincial Social Welfare Development Officer	Department heads/chiefs of LGUs or any representative under each office	Youth Leaders
Provincial Government Environment and Natural Resources Officer	Municipal Council	Representatives from Women's Group
Provincial Disaster Risk Reduction and Management Officer	Non-government organizations (NGOs) within the municipality	Representatives from Men's Group
	Private Organizations business sectors within the municipality	Representatives from Senior Citizens

Provincial	Municipal	Barangay
	Local institutions (schools, hospitals, church) within the municipality	Representatives from Religious Groups
		Representatives from Academe/School
		Representatives from other existing organizations, groups, associations in your barangay (e.g TODA, Fisherfolks, Farmers, etc)

4.1 IEC Plan

An IEC plan was developed to guide the implementation of the activities. The table below shows the summary of the plan.

Table 7. IEC Plan/Framework

Target Sector Identified as Needing Project IEC	Major Topic/s of concern in Relation to Project	IEC Scheme/ Strategy/ Methods	Information Medium	Indicative Timelines and Frequency	Indicative Cost
• LGUs in areas where all project facilities are proposed to be constructed • Government agencies with related mandate on the project • NGOs • POs • Indigenous People • Community/Households to be affected • Schools • Churches • Hospitals/clinics	• Project Description and Objectives • The Proponent • Purpose of the EIA • Scoping Process • Proposed location • Alternatives being considered • Projected Timeframe	• Individual Approaches • Group Approaches • Multi-media	• Invitation letters • FGD • Hand-outs • Audio-visual presentations • Primer/brochure • Posters •	• Prior to the conduct of Public Scoping • Continuous dissemination of information about the project • During the undertaking of the EIA study, review and approval process and, • After the issuance of the ECC	• Number of attendees • Cost of meals • Cost of venue • Cost of IEC Materials

4.2 IEC Materials

Different kinds of information materials were used for the IEC campaign. The materials used include a brochure, banners, AVP, and powerpoint presentation. The brochure and powerpoint presentation have the same content. Both included about a SRIP, description of the project, location, and benefits. Different maps and images were also included in the materials. The AVP showed the 3d version of the location of the project.

All of these information materials were prepared in the manner and language that can be easily understood by the stakeholders. The brochure was in Filipino language. Tha materials

contain complete information about the project such as the project description, the proponent, EIA process, and the outputs to be expected.

4.3 IEC at the Municipal and Barangay Levels

The main objective of conducting the IEC was to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, and projected timeframe. The activity helped in soliciting feedbacks to the SEIA Team about the understanding of the stakeholders about the project and the SEIA process. The concerns, issues, suggestions, and other inputs on the project were also gathered through IEC activity. The information gathered will help in preparing for the Public Scoping.

The table below shows the program for both IEC activity in the Provincial and Municipal Levels and Barangay Level. The plan was to conduct the activity for two hours. Time extension was only requested for the open forum.

Table 8. IEC Activity Program

TIME	TOPIC	SESSION HIGHLIGHT/DESCRIPTION
9:00-9:10	**Introduction**	Opening of program. Why IEC activity should be conducted
9:10-9:15	**Opening Remarks**	Welcoming/acknowledging of participants
9:15-9:30	**Environmental Impact Assessment (EIA) Process**	Brief Overview of EIA Process and the activities to be undertaken for the acquisition of ECC
9:30-10:15	**Project Presentation** • Background • Project Area • Existing Infrastructure • Proposed Project • Project Benefits • Current Issues of the Proposed Project • Status of Project • Project Alternatives • Timeframe of Construction	Presentation about Bagtingon Small Water Reservoir Project
10:15-10:55	**Open Forum**	Issues/concerns
10:55-11:00	**Closing Remarks**	
11:00	**Adjournment**	

The IEC activity for the Provincial and Municipal Levels was conducted on December 9, 2021. The participants were gathered at the conference room in the Municipal Hall of Buenavista. A total of 21 stakeholders attended, one representative from the Provincial Office of Marinduque and the remaining, 18 officials from the Municipal Office of Buenavista, and three officials from Barangay Bagtingon.

For the Barangay Level, the activity was conducted on December 10, 2021. The participants were gathered at the Barangay Hall of Bagtingon. A total of 25 stakeholders attended. The participants are barangay officials and representatives from religious group, youth group,

Department of Health, Department of Education, Committee in Bagtingon, private organizations, farmers and fisheries group, women's group, and senior citizen group.

For both activities, the introduction was given by the representative from NIA. The opening remarks were given by the Municipal Mayor and Barangay Captain for the Provincial and Municipal Levels and the Barangay Level, respectively. The project information was presented by the EIA Consultant. The open forum was facilitated also by the EIA Consultant. The closing remarks were given by the Municipal Administrator and the Barangay Secretary for the Provincial and Municipal Levels and the Barangay Level, respectively.

4.4 Issues and Concerns raised

The representatives from both levels actively participated in the IEC activity. They voluntarily raised their concerns and opinions. The summary list of issues raised is presented in the table below.

Table 9. Issues and concerns raised during the IEC activity

IEC Activity Date and Venue	Name and Sector	Issues Raised/ Suggestions Provided	EIA Team's Response
Dec. 9, 2021 Municipal Hall of Buenavista	**Rolando S. Josue** *PGDH-PENRO PLGU Marinduque*	The preparation of past EIA plans did not incorporate climate change and other environmental factors.	It will be ensured that the current plan will incorporate these factors.
		There is a need for environmental and social management with monitoring.	The RAP Specialist and other members of the team already considered this aspect.
		Take into account all species inside the PA for sustainability of the watershed.	This is noted. The biodiversity specialist and watershed specialist are in charge of this.
		Account high value crops to prevent unnecessary costs/costing.	The agriculturist/ agronomist from the team will make sure that it is included in the costing.
		Ensure soil erosion mitigation measures (introduce new soil stabilization techniques to prolong lifespan ng SRIP).	These suggestions are noted and will be included.
		Provide mitigation measures in collecting materials for making the SRIP.	
	Johnny C. Francisco *Brgy. Kagawad LGU Bagtingon*	Consider the locals.	These will be included in the EIA report. Now aware of the fault line but it will be ensured that it is considered in formulating plans.
		Consider the fault line in the area.	
		How many hectares will be submerged in case the water in the dam rises? The people will be affected.	The estimated number of hectares will still be assessed. The possible impact and mitigation plans will be included in the EIA report.

IEC Activity Date and Venue	Name and Sector	Issues Raised/ Suggestions Provided	EIA Team's Response
	Bert S. Fabrero *Municipal Assessor* *LGU Buenavista*	Take into account stewardship programs inside PA	These suggestions are noted and will be included.
		Make the project an integrated one. Tap help from other agencies like DPWH, DENR, and DOST for monitoring and possible use of monitoring technology.	
		There should be transparency as this was the problem in the past.	It will be ensured that all the progress/development in the project will be disseminated to the stakeholders.
		Have a ridge to reef management.	It will be ensured that it will be done.
		Remove hydropower project, not plausible at the moment.	It will be removed in the report.
		One of the main benefits is the domestic water supply.	The project will not just provide irrigation to 226 ha of land but also provide water supply to the community.
		Provide livelihoods for the people in the community.	It will be ensured that the community members will be prioritized to be hired during the construction phase and even after construction phase. Other livelihood programs will also be included in the plan.
Dec. 10, 2021 Barangay Hall of Bagtingon	**Winfredo S. Sadia** *Councilor* *LGU Bagtingon*	The sites near the proposed project site are prone to flooding.	Flood mitigation plans will be included.
		Request for bridge construction in case of emergency on the rivers.	It will be proposed to NIA.
		Provide DOs and DONT's once SRIP was completed.	It will be provided.
		It can be a recreational area once established.	It will be include in the plan.
	Analie R. Moyar *Representative* *Religious Group*	Make sure to include livelihood and recreation.	It is noted.
		Transparency of the project	It was also mentioned during the provincial and municipal level presentation. It will be ensured that all developments about the project will be disseminated to the community.

IEC Activity Date and Venue	Name and Sector	Issues Raised/ Suggestions Provided	EIA Team's Response
	Heizel Faderogao *Brgy. Secretary* *LGU Bagtingon*	The project is beneficial. There will be more crop yield/harvest and increase of livestock.	
		Have a back-up plan for those to be affected by the SRIP construction.	It will be include in the plan.
	Genevieve Valenzuela *Representative* *Women's Group*	Provide a bridge from Purok Uno to Maksan.	It will be suggested to NIA.
	Alejandro Zulueta *Representative* *Farmers Association*	The farms will be destroyed during the construction.	Livelihood programs will be included in the plan and the farms/farmers who will be affected will be paid based on the cost of damage.
		What will you give as an alternative sources of income?	
	Johnny C. Francisco *Brgy. Kagawad* *LGU Bagtingon*	Who will maintain the dam once it is constructed?	The details about the plans after its construction will be in the report, including the maintenance.
		Consult all vulnerable stakeholders/people	It is noted.
	Morgito Salansagay *Committee on Environment* *LGU Bagtingon*	If rain pours for 24 hrs nonstop, river will surely rise.	This is noted and will be included in the mitigation plans.
		People want dikes in the mouth of the river.	It will be suggested to NIA.

5. INITIAL PERCEPTION SURVEY

Following the IEC efforts regarding the Bagtingon SRIP, an Initial Perception Survey (IPS) was conducted on December 9-10, 2021 at the Municipality of Buenavista and Barangay Bagtingon. A survey instrument was prepared based on the Environmental Management Bureau Guidelines. It covers the identification, perception, and attitudes of the respondents towards the project. It also includes project awareness of the respondent regarding the project, preference to be informed of the project, perceived positive and negative impacts of the project and whether or not they would approve the establishment of the project. The form used in the survey was provided in the Annex.

The IPS was conducted after the IEC activities at the Provincial and Municipal Levels and Barangay Level. The survey questionnaires were distributed to the participants after the IEC sessions. There was a total of 28 respondents. They were represented the barangay council, multi-sectoral representatives (women representatives, men group representative, senior citizen, church group representative) and other officials of the community.

5.1 Respondents Identification

The profile of the of the respondents including their age, gender, number of household members, religion, and occupation was obtained in conducting the Initial Perception Survey. The table below shows that most of the respondents are in the age group of 41-50. Eight out of the 28 respondents are in the age group 51-60. There are three respondents each from age group 31-40 and 61-70. There are two respondents who are higher than 70 years old. One respondent from the age group 21-30 and no respondent from age group 11-20. There are also two respondents whose ages are not indicated.

Table 10. Age Range of Respondents

Age Range	No. of Respondents
Unknown	2
11-20	0
21-30	1
31-40	3
41-50	9
51-60	8
61-70	3
Higher than 70	2
Total	28

Figure 5 shows the percentage of the total female and male respondents. From 28 respondents, 16 are males (57.1%), 11 are females (39.3%), and one did not indicate his/her gender.

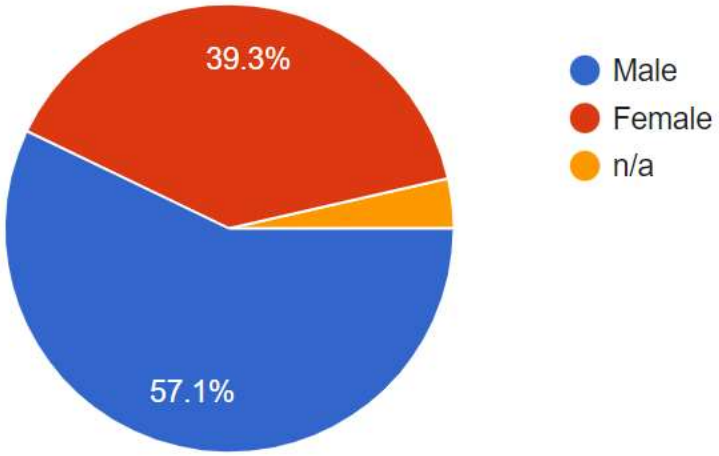

Figure 5. Gender Distribution

Table 8 shows that most of the respondents (25%) have five household members. Five respondents have three members. One respondent has more than nine household members. Seven respondents did not indicate the number of members.

Table 11. Number of Household Members

No. of Household Members	No. of Respondents	Percentage (%)
Unknown	7	25%
2	0	0%
3	5	17.9%
4	3	10.7%
5	7	25%
6	2	7.1%
7	3	10.7%
8	0	0%
9	0	0%
More than 9	1	3.6%

Table 9 shows the primary occupation of the respondents and its percentage value. From the 28 respondents, only one respondent does not have a work. Majority of the respondents (32.1%) are government employee. Three are farmers, three are elected municipal officials, three are elected barangay official, and one housewife. The second highest number with 5 (25%) has other jobs.

Table 12. Primary Occupation of the Respondents

Occupation	No. of Respondents	Percentage (%)
None	1	3.6%
Farmer	3	10.7%
Fisherman	0	0%
Construction Worker	1	3.6%

Occupation	No. of Respondents	Percentage (%)
Driver	0	0%
Business Owner	0	0%
Government Employee	9	32.1%
Private Sector Employee	0	0%
Teacher (Private/Public)	0	0%
OFW	0	0%
Elected Municipal Official	3	10.7%
Elected Barangay Official	3	10.7%
Housewife	1	3.6%
Student	0	0%
Others	5	25%

Figure 6 shows the dominant religious affiliation and its percentage value. Most of the respondents are Roman Catholic with 66.7%. It is followed by Aglipay religion with 11.1%. Others are affiliated with Iglesia ni Cristo, Seventh Day Adventist, ABCOP, and Born Again Christian. Others did not indicate their religion.

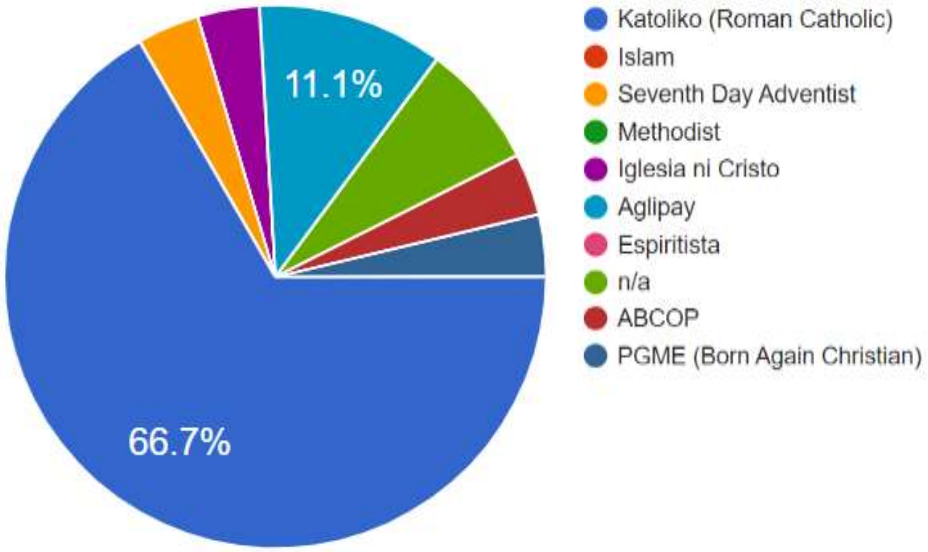

Figure 6. Religious Affiliation

Figure 7 shows the relationship of the respondents to the household head. Of the 28 respondents, majority (35.7%) of them are spouses and heads of the family. Three of the respondents (10.7%) are sons/daughters, four respondents (14.3%) did not indicate their relationships.

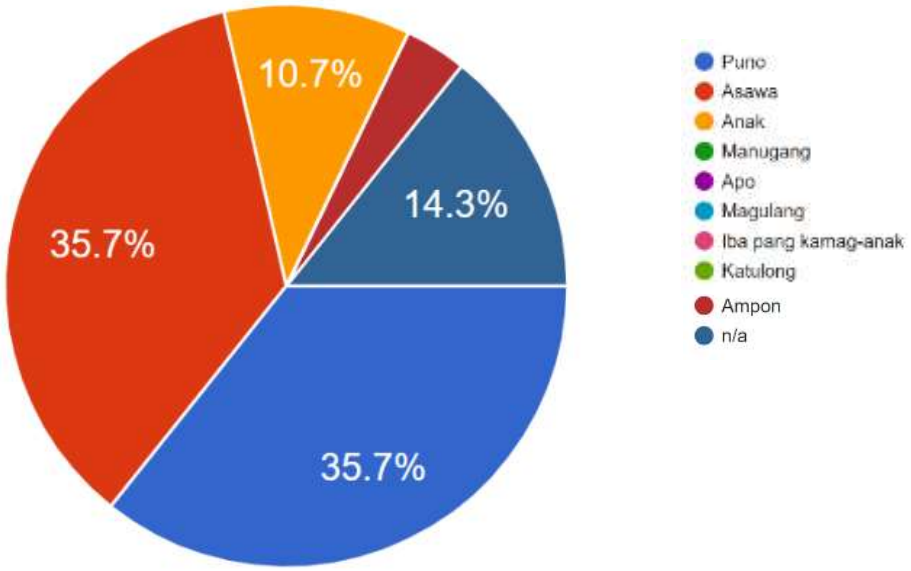

Figure 7. Relationship to the household head

5.2 Perceptions and attitude towards the project

A. Awareness of the Proposed Project

Figure 8 shows the awareness of the respondents towards the proposed project. Big majority of the respondents (82.14%) are aware of the project and only one respondent (3.57%) is not aware. Four respondents (14.29%) did not answer the question.

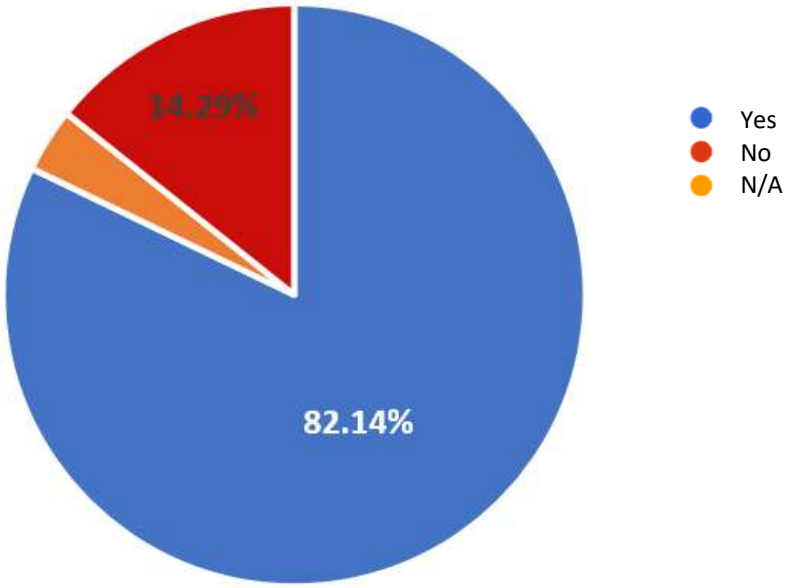

Figure 8. Awareness of the Project

B. Sources of Information about the Project

Table 10 shows from whom or where the respondents learned about the proposed project. Most of the respondents (39.29%) learned about the project from the Barangay and Municipal Officials. Seven respondents (25%) learned about it from the Barangay Assembly. Five respondents (17.86%) learned about it from project employees. Seven respondents did not specify from whom they learned about it.

Table 13. Sources of information about the Project

Sources	No. of Respondents	Percentage (%)
Radio	0	0%
Television	0	0%
Priest	0	0%
Family Member	0	0%
Neighbor	0	0%
Barangay Assembly	7	25%
Barangay/Municipal Officials	11	39.29%
Project Employees	5	17.86%
Others	2	7.4%
NA	7	25%

C. Perceived positive effects of the project

There are nine choices under the perceived positive effects of the project including employment for some residents, industrialization of the community, revenue to the barangay/municipality province, assisting community projects/development, community solidarity, flood mitigation, increase in fish catch, and improve tourism. They can choose many effects from the choices given. They can also choose none or suggest what positive effect the project can offer.

Table 11 shows that the respondents mostly chose improvement of tourism as one of the positive effects of the project. Most of the respondents also perceived that the project will give additional revenue to the barangay/municipality/province. Fourteen respondents perceived that it will give employment to some residents and assist the community development. No respondent perceived that the project does not have a positive effect.

Table 14. Perceived Positive Effects

Positive Effect	No. of Respondents
Employment for some residents	14
Industrialization of the community	6
Revenue to the barangay/municipality/province	15
Assisting community projects/development	14
Community solidarity	5
Flood mitigation	6
Increase fish catch	4
Improve tourism	16
Others	2
None	0

D. Perceived negative effects of the project

There are 13 choices under the perceived negative effects including decrease in farm harvest, soil erosion, flooding, decrease in groundwater resources, health hazard, peace and order hazard, water pollution, air pollution, noise pollution, and traffic congestion. They can choose many effects from the choices given. They can also choose none or suggest what positive effect the project can offer.

Table 12 shows that the respondents mostly chose flooding as the negative effect of the project. They also perceived that soil erosion will happen. No respondents perceived that there will be decrease in groundwater resources and health hazard. Two respondents assumed that the project will not give any negative effects on their barangay.

Table 15. Perceived Negative Effects

Negative Effect	No. of Respondents
Decrease in farm harvest	3
Soil erosion	12
Flooding	14
Decrease in groundwater resources	0
Health hazard	0
Peace and order hazard	3
Water pollution	1
Air pollution	1
Noise pollution	1
Traffic congestion	2
Others	5
None	2

E. Opinion of the respondents

Table 13 shows the list of opinions of the respondents on how the negative impacts will resolved. There are only 13 respondents who gave their opinions on resolving the negative impacts. Most of them suggested for Integrated development planning. They also suggested reforestation and rehabilitation of the watershed. Two of them suggested to build flood control. Other suggestions include mitigation measures, coordination with the LGUs, dikes construction, and other infrastructure project.

Table 16. Opinion on how to resolve the negative impacts

Opinion	No. of Respondents
Integrated Development Planning (Ridge to Reef Management)	4
Include mitigation measures in the plan	1
Reforestation/rehabilitation of watershed	3
Coordination with the LGUs	1
Dikes construction	1
Infrastructure project	1
Flood control	2

Table 14 shows the opinion of the respondents towards the project whether the community will benefit or not. Majority of the respondents (53.57%) assumed that the project will help the community and residents a lot. Three respondents (10.71%) assumed that it will be detrimental to the community. Ten respondents (35.71%) did not answer the question.

Table 17. Opinion on the project benefits

Opinion	No. of Respondents	Percentage (%)
will help the community and residents a lot	15	53.57%
will be able to help but not much	2	7.14%
will not help the community at all	1	3.57%
will be detrimental to the community	3	10.71%
NA	10	35.71%

5.3 Aspiration

A. Opportunity to work

The respondents were asked if given a chance to work, would they take the opportunity, and allow the household members to work for the project. Table 15 shows majority of them (57.14%) agreed that they would like to work for the project while two respondents were not interested. Two respondents were not sure and the remaining four respondents did not answer the question.

Table 18. Opportunity to work

	No. of Respondents	Percentage (%)
Yes	16	57.14%
No	2	7.14%
Not Sure	6	21.43%
NA	4	14.29%

The reasons why the respondents will take the opportunity to work on the project because it will help their community, they will have income, and they do not need to work in far places.

B. Projects needed by the community

The respondents were asked about the community development project that will be needed by the community. Nineteen respondents shared their suggestions. Seven of them suggested livelihood projects, four of them suggested flood control projects, two of them answered water system and agricultural projects. Other projects suggested include watershed management, alternative source of income, aquaculture projects, and bridge construction.

Table 19. Community Development Projects

Projects	No. of Respondents
Water system	2
Livelihood Projects	7
Watershed Management	1
Alternative source of income for the affected families, Rice Milling, Tourism	1
Aquaculture projects	1
Flood control projects	4
Bridge construction	1

Projects	No. of Respondents
Agricultural Projects	2

5.4 Attitude towards the Project

A. Approval of the Project

Table 17 shows the number of respondents that approved the establishment of the project. Majority of the respondents (64.29%) approved the project. Two respondents did not approve and four respondents are still not sure. Four respondents did not answer the question.

Table 20. Approval of the Project

	No. of Respondents	Percentage (%)
Yes	18	64.29%
No	2	7.14%
Not Sure	4	14.29%
NA	4	14.29%

ANNEXES

Annex 1. Communication Letters

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4th Fl., Hernandez Bldg., Batong Malake
Los Baños, Laguna, 4030, Philippines

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mapping better decisions

December 2, 2021

HON. MARIO C. FRANCISCO II
Chairperson
Brgy. Bagtingon, Buenavista, Marinduque

Subject: Request to Conduct the Information, Education and Communication and Perception Survey Activities for the Bagtingon Small Water Reservoir Project

Dear **Hon. Francisco II**,

Greetings! We hope this letter finds you and your constituency in good health.

We are Geographic Innovations for Development Solutions, Inc. (GRIDS), a geospatial consultancy and services firm based in Los Baños, Laguna which conducts mapping and remote sensing activities in support of various development projects. Established in 2016, GRIDS has engaged in several projects with private organizations and government agencies by providing geographic data to help them map out better decisions.

Recently, GRIDS is engaging with National Irrigation Administration (NIA) MOMARO Irrigation Management Office in Calapan City, Oriental Mindoro to conduct a study titled "Social Environmental Impact Assessment (SEIA) for Bagtingon Small Water Reservoir Project (SRIP)". In this project, we will provide technical services to prepare the Social and Environmental Impact Statement (SEIS) Report which is the primary document prerequisite in securing the Environmental Compliance Certificate (ECC). Also, we will provide assistance during technical scoping, public consultation, review of the document, and liaising to secure the ECC.

One of the requirements prior to scoping is the conduct of Information, Education and Communication (IEC) campaign and perception survey. The main objective of conducting the IEC is to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered, and projected timeframe. The activity will provide feedbacks to the SEIA Team about the understanding of the stakeholders about the project and the SEIA process. The concerns, issues, suggestions, and other inputs on the project will also be gathered through IEC activity. The information will be very valuable in preparing for the Public Scoping.

In this regard, we would like to request for the availability of your good office for a focus group discussion on **10December 2021, 9 am at the Barangay Hall of Barangay Bagtingon, Municipality of Buenavista, Marinduque**. May we also request your good office to assists us in inviting representatives from the following stakeholders:

1. Barangay Officials / D
2. Purok Leaders
3. Youth Leaders
4. Representatives from Women's Group
5. Representatives from Men's Group
6. Representatives from Senior Citizens
7. Representatives from Religious Groups
8. Representatives from Academe/School
9. Representatives from other existing organizations, groups, associations in your barangay (e.g TODA, Fisherfolks, Farmers, etc)

12/6/2021

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mapping better decisions

The activity will last approximately for two hours. Your participation is completely voluntary and rest assured that your concerns and suggestions will only be used for research purposes only. We hope that you and your staff would be available to take part in this important activity.

Should you wish to get in touch with our office, please don't hesitate to contact any of the following:

Sarena Grace L. Quinones, Project Development Officer — Contact number: 09351061614
Elena Wijanco, Research Associate — Contact number: 09069053416

Thank you and we look forward to a fruitful partnership with you for a more sustainable and healthier environment.

Sincerely,

MILBEN A. BRAGAIS, MSc., EnP
President & CEO of GRIDS, Inc.

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Los Baños, Laguna, 4030, Philippines

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MUNICIPALITY OF BUENAVISTA
RECEIVED
By:
DATE: 12-3-21
MAYOR'S OFFICE

December 2, 2021

HON. NANCY C. MADRIGAL
Chief Executive Official
Municipality of Buenavista, Province of Marinduque

Subject: Request to Conduct the Information, Education and Communication Campaign and Survey Activities for the Bagtingon Small Water Reservoir Project

Dear Hon. Madrigal,

Greetings! We hope this letter finds you and your constituency in good health.

We are Geographic Innovations for Development Solutions, Inc. (GRIDS), a geospatial consultancy and services firm based in Los Baños, Laguna which conducts mapping and remote sensing activities in support of various development projects. Established in 2016, GRIDS has engaged in several projects with private organizations and government agencies by providing geographic data to help them map out better decisions.

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One of the requirements prior to scoping is the conduct of Information, Education and Communication (IEC) campaign and perception survey. The main objective of conducting the IEC is to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered, and projected timeframe. The activity will provide feedbacks to the SEIA Team about the understanding of the stakeholders about the project and the SEIA process. The concerns, issues, suggestions, and other inputs on the project will also be gathered through IEC activity. The information will help in preparing for the Public Scoping.

In this regard, we would like to request for the availability of your good office for a focus group discussion on : **December 2021, 9am at ABC Hall, Municipality of Buenavista, Marinduque**. May we also request your good office to assists us in inviting representatives from the following stakeholders:

1. Mayor's Office
2. Vice-Mayor Office
3. Department heads/chiefs of LGUs or any representative under each office
4. Municipal Council
5. Non-government organizations (NGOs) within the municipality
6. Private Organizations business sectors within the municipality
7. Local institutions (schools, hospitals, church) within the municipality

1. DA
2. ASSESSOR
3. MENRO
4. MPDC
5. MSWDO
6. ACCOUNTING OFFICE
7. Treasurer
8. Local Civil Registrar
9. Budget Office
10. MHO
11. SB
12. Vice Mayor's office
13. Municipal Mayor Office
14. Ms Pimpa Cabrera
15. Ms Marilou Jacobe

Provl) -
- Provl. Administrator
- PPDO
- PSWDO
- PENRO
- PDRRMO
- NIA -
GRIDS TEAM

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Los Baños, Laguna, 4030, Philippines

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The activity will last approximately for two hours. Your participation is completely voluntary and rest assured that your concerns and suggestions will only be used for research purposes only. We hope that you and your staff would be available to take part in this important activity.

Should you wish to get in touch with our office, please don't hesitate to contact any of the following:

Sarena Grace L. Quinones, Project Development Officer — Contact number: 09351061614
Elena Wijanco, Research Associate — Contact number: 09069053416

Thank you and we look forward to a fruitful partnership with you for a more sustainable and healthier environment.

Sincerely,

MILBEN A. BRAGAIS, MSc., EnP
President & CEO of GRIDS, Inc.

Annex 2. Attendance Sheets

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

GRIDS

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT

Project Orientation
December 9, 2021

Name	Organization	Designation	Mobile Number	Email Address	Signature
1.					
2.					
3.					
4.					
5.					
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10.					

Name	Organization	Designation	Mobile Number	Email Address	Signature
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NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

GRIDS

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT

Project Orientation
December 10, 2021

Name	Organization	Designation	Mobile Number	Email Address	Signature
1. ARNEL LANUZA LIMBO	DepEd	School Head	09999669667		
2. Evangeline P. Mayores		Senior Presidet			
3. Analie R. Mayor	Religious Group	[illegible]	09109403102		
4. Karen Idlong	Kabataan	SK chairperson	09486300876		
5. Beatriz O. Zulueta	Comm. Health	Brgy. Kagawad			
6. Marites L. Rodelas	Health	B.H.W	09120134904		
7. WINEFREDO S SAPIA	Com. on Peace & Order	Kagawad	09502693163		
8. RENEGIL SIENA		TANOD			
9. Welmario S. Rodelas	BUFALO''	tanod	09120134964		
10. ZALDY S. JOBOG JR.	Fisherman	[illegible]	09467528678		

Name	Organization	Designation	Mobile Number	Email Address	Signature
11. [illegible] Sadi	[illegible]	FXMES	0948800582		
12. JOHNNY FRANCISCO	[illegible]	CHAIRMAN/[illegible]			
13. Jay Mintal					
14. [illegible] S Zulueta					
15. Margito Salamay	IA Pres				
16. Alejandrino S Zulueta					
17. GENEVIEVE VALENZUELA	WOMENS		09505500901		
18. Reland Saez					
19. MARK DAN Lolong					
20. [illegible]	NIA - PIO		09290029473		
21. EVELYN M. FAUCAN	NIA -	IDO-A	09183997628		
22. CHRISTIAN M. LAGGADO	NIA - PIO [illegible]	IDO-A	09199770863		
23. Kristian E Evangelista	Purok Leader / Ta	Tanod			
24. Heizel Faderogao	SB	Brgy. Sec.	09070414076		
25. Nicodeo Liwanag	TANOD		09383526234		

Annex 3. IEC Banner

Annex 4. Brochure for Bagtingon SRIP

National Irrigation Administration
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT

Kung may katanungan o suhestiyon, maaaring kontakin ang

National Irrigation Administration (NIA)-MIMAROPA

Facebook: nia4bmimaropa
Website: region4b.nia.gov.ph
Email: mimaropa@nia.gov.ph
Telephone No.: (043) 288-7267
Cellphone No.: 0917 849 5267

Small Reservoir Irrigation Project (SRIP)

Ang Small Reservoir Irrigation Projects (SRIPs) ay isa sa mga pangunahing proyekto ng NIA sa ilalim ng 10-year Accelerated Irrigation Development Program ng national government.

Lokasyon ng Proyekto

Ang minumungkahing Bagtingon SRIP ay matatagpuan sa Barangay Bagtingon, Buenvista, Marinduque. Ito ay isa sa labing limang barangay ng Buenavista. Ito ay humigit-kumulang 3 km mula sa bayan at maaaring maabot ng anumang uri ng land transportation kahit tag-ulan.

Ang tatayuan ng Bagtingon SRIP ay nasa kabuuang **226 ha** na lahat ay maaring taniman. Mayroong humigit-kumulang 101 ha na taniman ng palay kung saan ang lupa dito ay clay na kung tataniman ng palay ay magbibigay ng pinakamataas na kita.

Sitwasyon kapag walang Bagtingon SRIP

DESCRIPTION	AREA (has)	YIELD (mt/ha)	YIELD (cavan/ha)	PRODUCTION (mt/yr)
Wet Season:				
Irrigated	68	4.0	80	272
Rainfed	52	3.0	60	156
Upland Rice	55	1.0	20	55
Dry Season:				
Irrigated	56	3.5	70	196
TOTAL				**679 (13,580 cavans/yr)**

Sitwasyon kapag nagawa ang Bagtingon SRIP

DESCRIPTION	AREA (has)	YIELD (mt/ha)	YIELD (cavan/ha)	PRODUCTION (mt/yr)
Wet Season:				
Irrigated	301	4.5	90	1,354.50
Dry Season:				
Irrigated	301	5.0	100	1,505.00
TOTAL				**2,859.50 (57,190 cavans/yr)**

Bagtingon SRIP

Ang iminungkahing proyekto ay matatagpuan ilang metro lamang mula sa ibabang bahagi ng ilog mula sa pinagtagpong ilog ng Banlawanin at Subling na kalaunan ay tinawag na ilog Bagtingon bilang kalapit bahagi ng Tablas Strait.

- Drainage Area: 7.65 km²

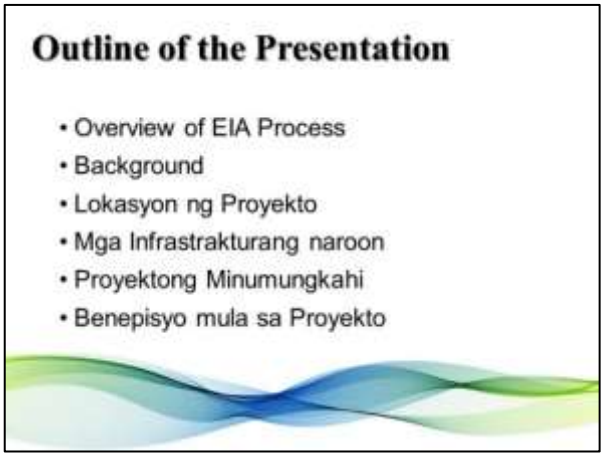
DAM
- Uri: Zoned Earthfill
- Crest elevation ng dam: 107.0 m
- Taas ng dam: 27.0 m
- Haba ng tuktok ng dam : 197.7 m
- Kapal ng tuktok ng dam: 9.0 m
- Kabuuang kapasidad ng imbakan: 317,781.06 cu. meters

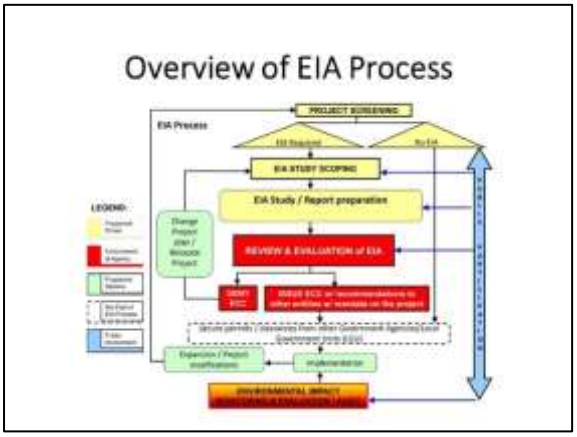
SPILLWAY
- Uri: Side Channel
- Kapal ng tuktok ng dam: 24 m
- Taas ng tuktok mula sa lupa: 102.0 m

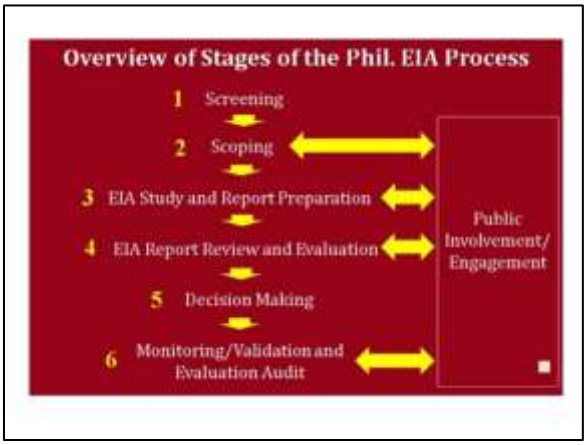
RESERVOIR
- Normal W.S. Elevation: 102.0 m
- Minimum W.S. Elevation: 93.5 m
- Reservoir Area at Normal W.S. Elevation: 10.43 ha
- Reservoir Area at Min. W.S. Elevation: 5.37 ha

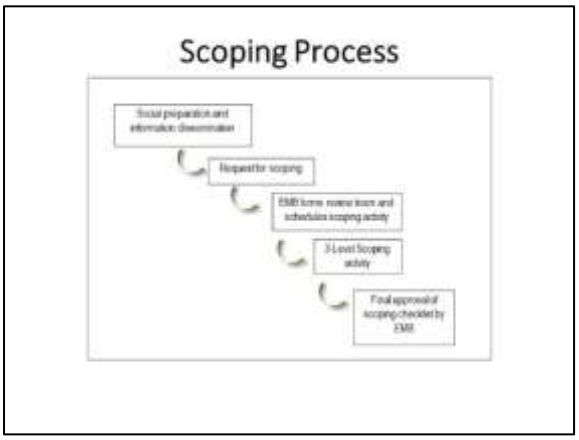
IRRIGABLE AREA
- Wet Season: 226 ha
- Dry Season: 226 ha

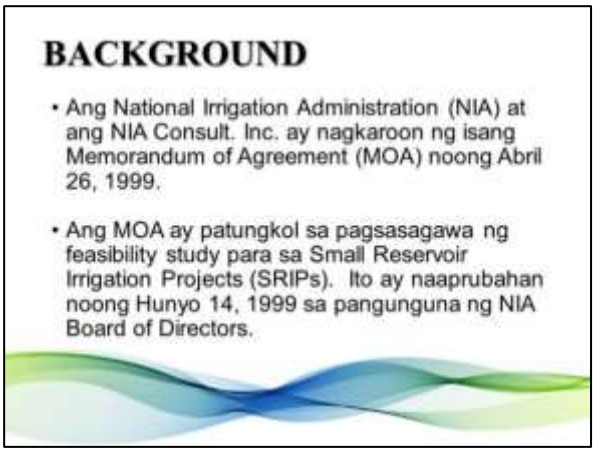
Annex 5. IEC Powerpoint Presentation











BACKGROUND

- Ang Small Reservoir Irrigation Projects (SRIPs) ay isa sa mga pangunahing proyekto ng NIA sa ilalim ng 10-year Accelerated Irrigation Development Program ng national government.

Ano ang SRIP?

- Ang SRIPs ay naglalayong magpatayo ng katamtamang laki ng dam at mga istruktura upang magsilbing imbakan ng tubig sa panahon ng tag-ulan at para makapagbigay ng patubig sa mga sakahan sa loob ng buong taon.
- Ang iba pang mga benepisyo mula sa mga SRIPs ay flood control, aquaculture, hydropower, domestic water supply, at recreational facility.

Pagpapatupad ng SRIP

- Ang SRIP-Project Management Office (PMO) ang nangunguna sa pagpapatupad ng nasabing SRIPs (Dam Aspects) ng NIA sa buong bansa.
- Kabilang sa kanilang tungkulin ay ang pagsasagawa ng survey, feasibility study (FS), detalyadong disenyo ng mga proyekto at pagtatayo ng mga pipeline na kwalipikado para sa pagpapatupad ng proyekto.

Pagpapatupad ng SRIP

- Ang SRIP-PMO ay mayroong tatlumpung (30) proyekto na matatagpuan sa iba't ibang rehiyon ng bansa para sa Inventory and Revalidation (Phase 1).
- Depende sa magiging resulta mula sa mga proyektong ito kung magpapatuloy sa paggawa/ pagkumpleto ng FS para sa dalawampung (20) mga proyekto (Phase II).

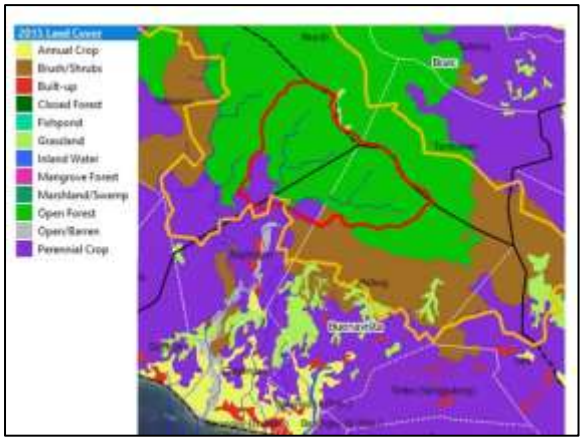
Pagpapatupad ng SRIP

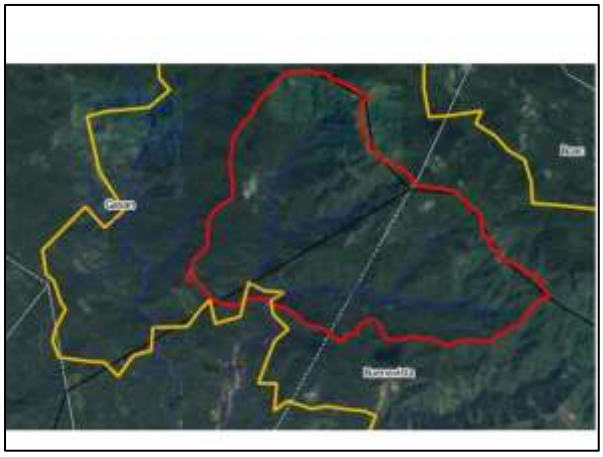
- Mula sa dalawampung (20) namungkahing mga proyekto, ang **Bagtingon SRIP** ay isa sa mga napili na prayoridad na proyekto.
- Ang iba sa mga naging batayan sa pagpili ay ang katangian ng lokasyon ng dam at kahandaan ng proyekto sa pagkakaroon ng geologic data at topographic maps.

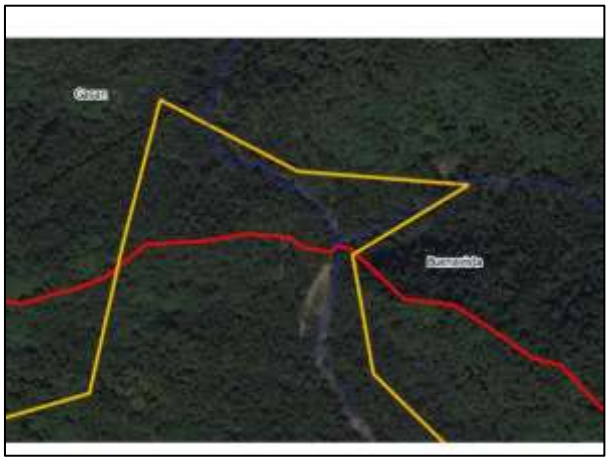
Lokasyon ng Proyekto

LOKASYON NG BAGTINGON SRIP

- Ang minumungkahing Bagtingon SRIP ay matatagpuan sa Barangay Bagtingon, Buenvista, Marinduque.Ito ay isa sa labing limang barangay ng Buenavista. Ito ay humigit-kumulang 3 km mula sa bayan at maaaring maabot ng anumang uri ng land transportation kahit tag-ulan.







LOKASYON NG BAGTINGON SRIP

- Ang tatayuan ng Bagtingon SRIP ay nasa kabuuang **301 ha** na lahat ay maaring taniman. Mayroong humigit-kumulang **101 ha** na taniman ng palay kung saan ang lupa dito ay clay na kung tataniman ng palay ay magbibigay ng pinakamataas na kita.

EXISTING INFRASTRUCTURE

Irrigation Facilities

- Ang Bagtingon Communal Irrigation System ay pinamamahalaan ng isang maliit na grupo ng mga magsasaka mula sa Bagtingon. Saklaw nito ang kabuuang lawak na 15 ha.

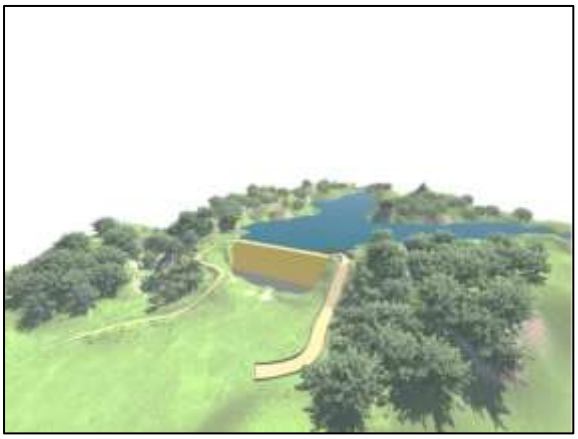
Irrigation Facilities

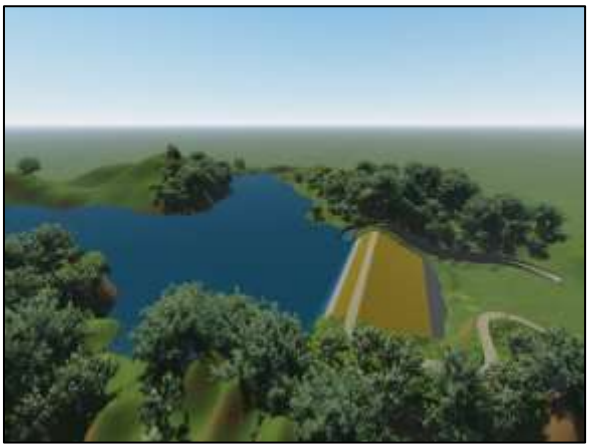
- Ang Bagong Pag-asa System na may service area na 25 ha at Malbog System na may service area na 60 ha ay kadalasang hindi nagagamit dahil sa pagkatuyo ng mga sapa na nagbibigay ng patubig sa mga lugar na ito.
- Upang madagdagan ang mga kakulangan sa tubig sa panahon ng tag-ulan at tagtuyot, ang mga indibidwal na magsasaka ay naglagay ng ilang mababaw na balon sa piling mga lugar.

BAGTINGON SRIP

Tungkol sa Bagtingon SRIP

- Ang iminungkahing proyekto ay matatagpuan ilang metro lamang mula sa ibabang bahagi ng ilog mula sa pinagtagpong ilog ng Banlawanin at Subling na kalaunan ay tinawag na ilog Bagtingon bilang kalapit bahagi ng Tablas Strait.





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- Drainage Area: 7.65 km2

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- Uri: Zoned Earthfill
- Crest elevation ng dam: 107.0 m
- Taas ng dam: 27.0 m
- Haba ng tuktok ng dam : 197.7 m
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- Uri: Side Channel
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- Normal W.S. Elevation: 102.0 m
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- Reservoir Area at Normal W.S. Elevation: 10.43 ha
- Reservoir Area at Min. W.S. Elevation: 5.37 ha

Bagtingon SRIP

IRRIGABLE AREA

- Wet Season: 226 ha
- Dry Season: 226 ha

MGA BENEPISYO

Mga Benepisyo mula sa Bagtingon SRIP

1. Irrigation
2. Aquaculture
3. Flood Control
4. Hydro-power
5. Domestic Water Supply
6. Recreational Facilities

Iba pang mga benepisyo

1. Magbibigay ng dagdag trabaho
2. Mapapabuti ang kalagayan ng kapaligiran at ng mga magsasaka

Sitwasyon kapag walang Bagtingon SRIP

DESCRIPTION	AREA (has)	YIELD (mt/ha)	YIELD (cavan/ha)	PRODUCTION (mt/yr)
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Dry Season:				
Irrigated	301	5.0	100	1,505.00
TOTAL				**2,859.50 (57,190 cavans/yr)**

Annex 6. Photo Documentation of IEC Activity and IPS

Provincial and Municipal Levels IEC Activity

Barangay Level IEC Activity

Administration of IPS

Annex 7. Initial Perception Survey (IPS) Questionnaire

PERCEPTION SURVEY FORM
Proposed Bagtingon Small Water Reservoir Project

Panuto: Isulat ang sagot sa nakalaang patlang o bilugan ang numero na nagsasaad ng sagot. Ang magsasagot ng survey ay ang puno ng pamilya o ang kanyang asawa, maari ring silang dalawa.

Pangalan*:* _____

Barangay: _____

Petsa: _____

Lagda: _____

I. RESPONDENT'S IDENTIFICATION

1. **Pangalan ng Kapanayam** *(Name of Respondent):*

_____ /_____ /

(First Name) (Middle Name) (Last Name)

2. **Trabaho** (*Occupation*):

0 = Wala **7** = Private Sector Employee **14** = Iba pa,

1 = Farmer
2 = Fisherman
3 = Construction Worker
4 = Driver
5 = Sariling Negosyo
6 = Government Employee
8 = Teacher (Private/Public_
9 = OFW
10 = Elected Municipal Official
11 = Elected Barangay Official
12 = Housewife
13 = Student

3. **Edad** (*Age*):_____ **4. Kasarian** (*Gender*):

4. **Relasyon sa Puno ng Sambahayan** (*Relationship to the Household Head*):

1 = Puno
2 = Asawa
3 = Anak
4 = Manugang
5 = Apo
6 = Magulang
7 = Iba pang kamag-anak
8 = Katulong
9 = Ampon
10 = Iba pa, _____

5. **Bilang ng miyembro ng Sambahayan** (*Number of Household Members*):

6. **Relihiyon** *(Religion):*

1 = Katoliko (Roman Catholic)
2 = Islam
itala *(others)*
3 = Seventh Day Adventist
4 = Methodist
5 = Iglesia ni Cristo
6 = Aglipay
7 = Espiritista
8 = Iba pa,

II. PERCEPTIONS AND ATTITUDES TOWARDS THE PROJECT

Part I. Awareness of the Proposed Project

1. **Alam mo ba ang tungkol sa Bagtingon Small Water Reservoir Project?** *(Are you aware of the proposed project?)*

   1 = Oo *(Yes)* **2** = Hindi *(No)* [proceed to number 3]

2. **Kung oo, kanino o saan mo ito nalaman/nabalitaan?** *(From whom did you learn of the proposed project?)*

   1 = radio
   2 = television
   3 = parish priest
   4 = family member
   5 = neighbor
   6 = barangay assembly
   7 = barangay / municipal officials
   8 = project employees
   9 = others, specify

3. **Kung hindi, paano mo gustong malaman ang tungkol sa proyekto?** *(How do you want to be informed regarding the proposed project?)*

   1 = radio
   2 = television
   3 = parish priest
   4 = family member
   5 = neighbor
   6 = barangay assembly
   7 = barangay / municipal officials
   8 = project employees
   9 = others, specify

Part II. Perceptions Towards the Project

4. **Anu-ano sa palagay mo ang maaring idulot ng proyekto sa inyong komunidad? Bilugan ang lahat ng posibleng sagot.** *(In your opinion, what do you think will be the effects of the proposed project to your community/town/province? Encircle the corresponding numbers).*

(Positibo o Magandang Epekto)
Perceived Positive (Beneficial) Effects/Impacts

0 = wala *(none)*
1 = Trabaho sa mga kabarangay *(employment for some local residents)*
2 = industriyalisasyon sa komunidad *(industrialization of the community)*
3 = kadaragdagang kita para sa barangay/bayan/probinsya *(revenue to the barangay/municipality/province)*
4 = karagdagang tulong/proyekto sa pagpapa-unlad ng barangay *(assisting community projects/development)*
5 = pagsasama-sama ng komunidad *(community solidarity)*
6 = Maiwasan ang pag-baha *(flood mitigation)*
7 = Mapadami ang huli sa ilog at dagat *(increase fish catch)*
8 = Mapaunlad and turismo sa lugar *(improve tourism)*
9 = Iba pa *(others, specify*) _____

(Negatibo o Masamang Epekto)
Perceived Negative (Adverse) Effects/Impacts

0 = wala *(none)*
1 = pagbawas ng ani sa bukid *(decrease in farm harvest)*
2 = pagguho ng lupa *(soil erosion)*
3 = pagbaha *(flooding)*
4 = pagbawas ng tubig sa ilalim ng lupa *(decrease in ground water resources)*
5 = peligro sa kalusugan *(health hazard)*
6 = peligro sa katahimikan *(peace and order hazard)*
7 = polusyon sa tubig *(water pollution)*
8 = polusyon sa hangin *(air pollution)*
9 = polusyon sa ingay *(noise pollution)*
10 = dagdag trapiko *(traffic congestion)*
11 = Iba pa *(others, specify)* _____

5. **Kung may negatibo o di-magandang epekto, sa inyong pananaw paano ito malulutas?** *(If there are negative impacts, in your opinion how will it be resolved?)*

_____
_____
_____

6. **Sa iyong palagay, ang planong proyekto ay….** *(In your opinion, the proposed project….)*
   1 = makakatulong ng Malaki sa komunidad at sa mga residente *(will help the community and local residents a lot)*
   2 = nakatutulong sa komunidad at sa residente, pero di gaano *(will be able to help but not much)*
   3 = hindi makatutulong sa komunidad at sa residente *(will not help the community at all)*
   4 = makasasama sa komunidad at sa resisdente *(will be detrimental to the community)*

Part III. Aspiration

7. **Kung may pagkakataong makapagtrabaho sa proyekto , gusto mo ba o papayagan mo ba ang miyembro ng inyong pamilya?** *(Given the chance to work for the project, would you take the opportunity, or would you permit your husband/wife/son/daughter to work for the project?)*

   1 = Oo *(Yes)* **2** = Hindi *(No)* **3** = Hindi sigurado (Not Sure)

   Bakit? (*Why?*)

8. **Sa iyong palagay, anu-anong proyekto para sa komunidad ang kailangan?** *(What community development projects do you think are needed by the community?)*

_____

Part IV. Attitude Towards the Project

9. **Mula sa iyong mga naunang kasagutan, payag ka ba na matuloy ang proyekto?** *(Having responded to above questions, would you approve the establishment of the project?)*

   1 = Oo *(Yes)* 2 = Hindi *(No)* 3 = Hindi sigurado *(Not Sure)*

   Bakit? (*Why?*)

10. (Sa mga sumagot ng ***"Hindi"*** o ***"Hindi Sigurado"***)
    Kung magiging kontrolado o mabawasan ang mga palagay mong negatibong epekto ng proyekto, payag ka ba na matuloy ang proyekto? *(Upon abatement or control of perceived adverse effect, if any, will you approve the establishment of the project?)*

    1 = Oo *(Yes)* 2 = Hindi *(No)* 3 = Hindi sigurado *(Not sure)*

    Bakit? *(Why?)*

11. **Sa inyong palagay, paano makakatulong ang binabalak na proyekto sa inyong komunidad at sa mga residente nito?** *(In your opinion, how will the project help your community at the residents?)*

    _____

- END -

Annex 8. Preliminary List of Stakeholders and Partial List of Invitees for Public Scoping

Government

Name	Designation/Office	Address	Contact Details
Provincial Level			
Presbitero J. Velasco, Jr.	Governor, Provincial Office of Marinduque	Marinduque Provincial Capitol Boac, Marinduque	marinduqueprovincialgovt@gmail.com governorpresby@gmail.com (042) 704-0144
Romulo A. Bacorro, Jr.	Vice Governor, Provincial Office of Marinduque		
Vincent Michael Q. Velasco	Provincial Administrator, Provincial Office of Marinduque		
Atty. Rommel P. Fernandez	Provincial Legal Officer, Provincial Office of Marinduque		
Armando P. Pedrigal	Provincial Agriculturist, Provincial Office of Marinduque		
Jose Rino Labay	Disaster Risk Reduction and Management Officer, Provincial Office of Marinduque		
Rolando S. Josue	Provincial Gov't Environment and Natural Resources Officer, Provincial Office of Marinduque		
Rodrigo E. Opis, Ce	Provincial Assessor, Provincial Office of Marinduque		
Rodil O. Leal	Provincial Engineer, Provincial Office of Marinduque		
Joel A. Recella	Provincial Social Welfare Development Officer, Provincial Office of Marinduque		
Gerardo M. Jamilla	Provincial Tourism Coordinator, Provincial Office of Marinduque		
Municipal Level			
Nancy Castro Madrigal	Mayor, Municipal Office of Buenavista	Municipal Office, Buenavista, Marinduque	mayornancycastromadrigal@gmail.com (042) 704-0062
Hannilee Rey Siena	Vice Mayor, Municipal Office of Buenavista		
David Vitto	Sangguniang Bayan Members, Municipal Office of Buenavista		
Rommel Millar			
Herminigildo Larena Malapote			
Renato Madrigal			
Eduardo Pampola			
Joseph Ogalinola			
Edgar Perlas			
Luzmininda Salvacion			

Concerned Stakeholder Groups in Barangay Bagtingon, Buenavista, Marinduque

Name	Organization	Designation/Office	Contact Details
Arnel L. Limbo	DepEd	School Head	09999669667
Evangeline P. Mayora	DepEd	Senior President	
Analie P. Moyen	Religious Group	Representative	09109603102
Karen Lolong	Youth Group	SK Chairman	09486300876
Beatriz Zulueta	LGU Bagtingon	Kagawad	09502693163
Winefredo G. Gadia	LGU Bagtingon	Kagawad	
Marites R. Rodelas	Health Center	BHW	09120134904
Renegal Siena	LGU Bagtingon	Tanod	09383566234
Wilmonia Rodilas	LGU Bagtingon	Tanod	
Kristine E. Evangelista	LGU Bagtingon	Tanod	
Nicodeo Liwanaga	LGU Bagtingon	Tanod	
Zaldy S. Jobog, Jr.	Fishermen Group	President	09467328678
Roland Sadri	Farmers Group	President	09488800882
Johnn Francisco	Farmers Group	Member	
Genevieve Valenzuela	Women's Group	09505500901	

Annex 9. Draft Letter of Invitation

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

December 28, 2021

HON. PRESBITERO J. VELASCO JR.
Governor
Province of Marinduque

Subject: Request to Conduct Public Scoping for the Bagtingon Small Water Reservoir Project

Dear **Hon. Velasco, Jr.**,

Greetings! We hope this letter finds you and your constituency in good health.

National Irrigation Administration (NIA) MOMARO Irrigation Management Office in Calapan City, Oriental Mindoro is conducting a project entitled "Social Environmental Impact Assessment (SEIA) for Bagtingon Small Water Reservoir Project (SRIP)". Part of this project is complying with the procedural and requirements for acquiring an Environmental Compliance Certificate (ECC) under the Presidential Decree 1586, establishing an environmental impact statement system.

One of the activities required for the issuance of ECC is the conduct of Public Scoping, as per DENR Administrative Order 2017-15 Guidelines on Public Participation under the Philippine Environmental Impact Statement (EIS) System. In this regard, we would like to request for the availability of your good office for the Public Scoping for the Proposed Bagtingon SRIP **on 14 February 2022, 10am-12nn, at the Barangay Hall of Barangay Bagtingon, Municipality of Buenavista, Marinduque**. May we also request your staff particularly your Provincial Administrator, Provincial Planning and Development Officer, Provincial Social Welfare Development Officer, Provincial Government Environment and Natural Resources Officer, and Provincial Disaster Risk Reduction and Management Officer to attend this activity.

The activity will last approximately for two hours. Your participation is completely voluntary and rest assured that your concerns and suggestions will only be used for research purposes only. We hope that you and your staff would be available to take part in this important activity.

Thank you and we look forward to a fruitful partnership with you for a more sustainable and healthier environment.

Sincerely,

ENGR. GERARDO R. PEREZ
Division Manager
MOMARO IMO

Annex 10. Draft Presentation for Public Scoping

National Irrigation Administration
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT

Project Orientation

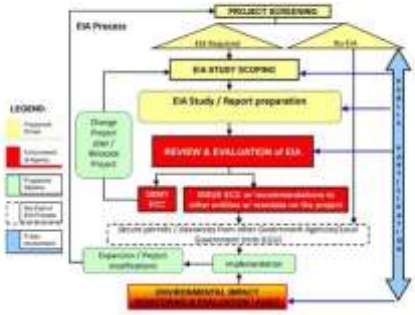
Barangay Bagtingon,
Municipality of Buenavista,
Province of Marinduque

December 9-10, 2021

Outline of the Presentation

- Overview of EIA Process
- Background
- Lokasyon ng Proyekto
- Mga Infrastrakturang naroon
- Proyektong Minumungkahi
- Benepisyo mula sa Proyekto

Overview of EIA Process

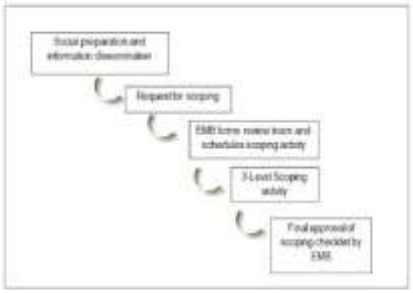


Overview of Stages of the Phil. EIA Process

1 Screening
2 Scoping
3 EIA Study and Report Preparation
4 EIA Report Review and Evaluation
5 Decision Making
6 Monitoring/Validation and Evaluation Audit

Public Involvement/ Engagement

Scoping Process



BACKGROUND

- Ang National Irrigation Administration (NIA) at ang NIA Consult. Inc. ay nagkaroon ng isang Memorandum of Agreement (MOA) noong Abril 26, 1999.
- Ang MOA ay patungkol sa pagsasagawa ng feasibility study para sa Small Reservoir Irrigation Projects (SRIPs). Ito ay naaprubahan noong Hunyo 14, 1999 sa pangunguna ng NIA Board of Directors.

BACKGROUND

- Ang Small Reservoir Irrigation Projects (SRIPs) ay isa sa mga pangunahing proyekto ng NIA sa ilalim ng 10-year Accelerated Irrigation Development Program ng national government.

Ano ang SRIP?

- Ang SRIPs ay naglalayong magpatayo ng katamtamang laki ng dam at mga istruktura upang magsilbing imbakan ng tubig sa panahon ng tag-ulan at para makapagbigay ng patubig sa mga sakahan sa loob ng buong taon.
- Ang iba pang mga benepisyo mula sa mga SRIPs ay flood control, aquaculture, hydropower, domestic water supply, at recreational facility.

Pagpapatupad ng SRIP

- Ang SRIP-Project Management Office (PMO) ang nangunguna sa pagpapatupad ng nasabing SRIPs (Dam Aspects) ng NIA sa buong bansa.
- Kabilang sa kanilang tungkulin ay ang pagsasagawa ng survey, feasibility study (FS), detalyadong disenyo ng mga proyekto at pagtatayo ng mga pipeline na kwalipikado para sa pagpapatupad ng proyekto.

Pagpapatupad ng SRIP

- Ang SRIP-PMO ay mayroong tatlumpung (30) proyekto na matatagpuan sa iba't ibang rehiyon ng bansa para sa Inventory and Revalidation (Phase 1).
- Depende sa magiging resulta mula sa mga proyektong ito kung magpapatuloy sa paggawa/ pagkumpleto ng FS para sa dalawampung (20) mga proyekto (Phase II).

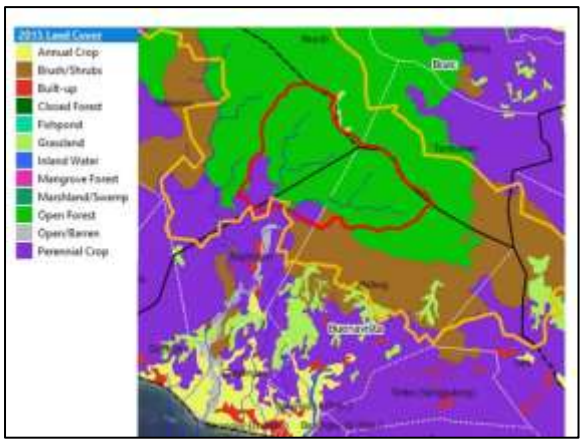
Pagpapatupad ng SRIP

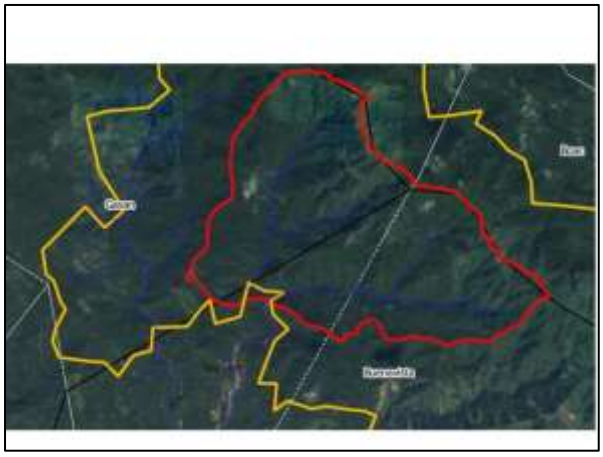
- Mula sa dalawampung (20) namungkahing mga proyekto, ang **Bagtingon SRIP** ay isa sa mga napili na prayoridad na proyekto.
- Ang iba sa mga naging batayan sa pagpili ay ang katangian ng lokasyon ng dam at kahandaan ng proyekto sa pagkakaroon ng geologic data at topographic maps.

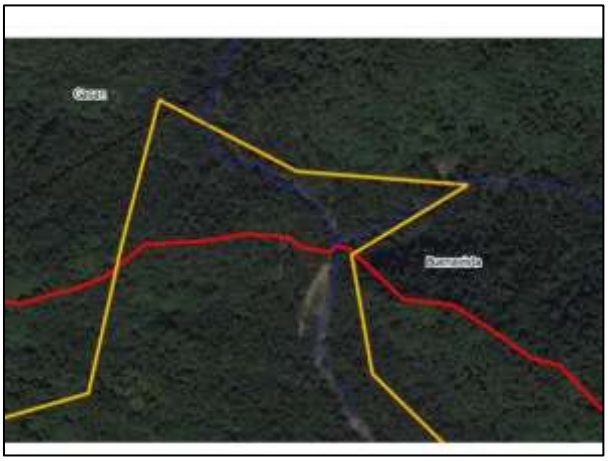
Lokasyon ng Proyekto

LOKASYON NG BAGTINGON SRIP

- Ang minumungkahing Bagtingon SRIP ay matatagpuan sa Barangay Bagtingon, Buenvista, Marinduque.Ito ay isa sa labing limang barangay ng Buenavista. Ito ay humigit-kumulang 3 km mula sa bayan at maaaring maabot ng anumang uri ng land transportation kahit tag-ulan.







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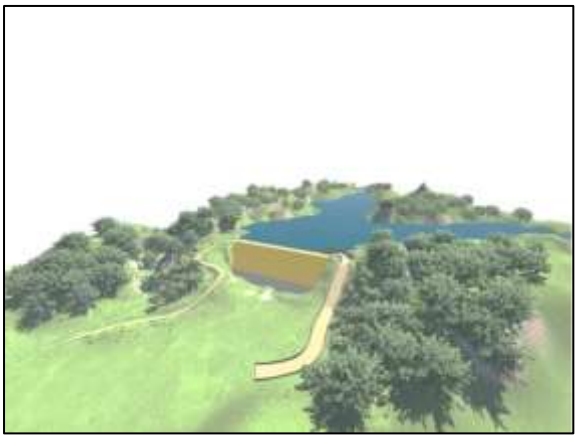
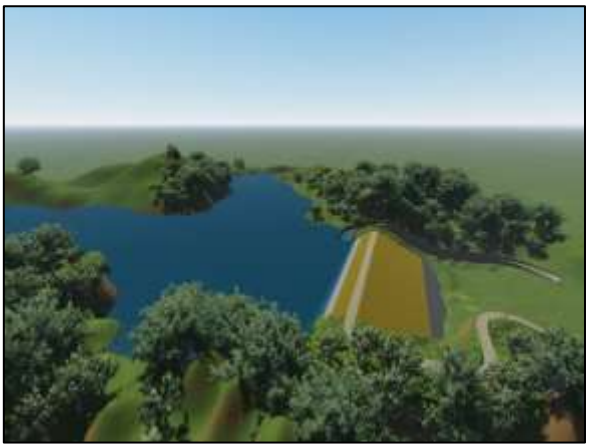
BAGTINGON SRIP

Tungkol sa Bagtingon SRIP

- Ang iminungkahing proyekto ay matatagpuan ilang metro lamang mula sa ibabang bahagi ng ilog mula sa pinagtagpong ilog ng Banlawanin at Subling na kalaunan ay tinawag na ilog Bagtingon bilang kalapit bahagi ng Tablas Strait.





Bagtingon SRIP

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- Crest elevation ng dam: 107.0 m
- Taas ng dam: 27.0 m
- Haba ng tuktok ng dam : 197.7 m
- Kapal ng tuktok ng dam: 9.0 m
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Bagtingon SRIP

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- Uri: Side Channel
- Kapal ng tuktok ng dam: 24 m
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- Normal W.S. Elevation: 102.0 m
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- Reservoir Area at Normal W.S. Elevation: 10.43 ha
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Bagtingon SRIP

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- Wet Season: 226 ha
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MGA BENEPISYO

Mga Benepisyo mula sa Bagtingon SRIP

1. Irrigation
2. Aquaculture
3. Flood Control
4. Hydro-power
5. Domestic Water Supply
6. Recreational Facilities

Iba pang mga benepisyo

1. Magbibigay ng dagdag trabaho
2. Mapapabuti ang kalagayan ng kapaligiran at ng mga magsasaka

Sitwasyon kapag walang Bagtingon SRIP

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Sitwasyon kapag nagawa ang Bagtingon SRIP

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TOTAL				2,859.50 (57,190 cavans/yr)

Annex 11. Program for Public Scoping

TIME	TOPIC	Resource person/s	SESSION HIGHLIGHT/DESCRIPTION
10:00-10:10	**Introduction**	NIA	Opening of program. Why IEC activity should be conducted
10:10-10:15	**Opening Remarks**	From Municipality of Buenavista, Marinduque	Welcoming/acknowledging of participants
10:15-10:30	**Public Scoping Rules**	EMB	Brief Overview of how the Public Scoping will be conducted
10:30-11:15	**Project Presentation** • Background • Project Area • Existing Infrastructure • Proposed Project • Project Benefits • Current Issues of the Proposed Project • Status of Project • Project Alternatives • Timeframe of Construction	GRIDS, Inc.	Presentation about Bagtingon Small Water Reservoir Project
11:15-11:55	**Open Forum**	EMB	Issues/concerns
11:55-12:00	**Closing Remarks**	**NIA**	
12:00	**Adjournment**		

11.8 Public Scoping Report

GRIDS
mapping better decisions

PUBLIC SCOPING REPORT

Bagtingon Small Reservoir Irrigation Project (BSRIP)

Prepared by:
Geographic Innovations for Development Solutions, Inc.

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LIST OF TABLES

1 INTRODUCTION

The Public Scoping for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) was conducted on 02 August 2023 in the Municipal Hall of Buenavista. The said scoping was initiated by the proponent, National Irrigation Administration (NIA) – MOMARO Irrigation Management Office (IMO) together with its Social Environmental Impact Assessment (SEIA) preparer – the Geographic Innovations for Development Solutions, Inc. (GrIDS, Inc.). The program was facilitated by the preparer represented by For. Mikaella C. Morada.

Invitations for the said public scoping were sent out to officials, group leaders, and major stakeholders of the project which stated the date, time, and venue provided by DENR – EMB MIMAROPA. Signed receipt copy is presented as Annex C.

The public scoping was attended by a total of forty-seven (47) individuals. Out of 47, 34 are males and 13 are females. The attendees are representatives from the proponent, preparer, DENR – EMB MIMAROPA, various offices of the host local government units (LGUs) specifically from Barangay Bagtingon, Municipality of Buenavista, in the Province of Marinduque. Other participants were from Department of Environment and Natural Resource – PENRO, Philippine National Police, and concerned organization/associations. Table 1 below shows the number of participants per group / sector while Annex D shows the attendance signed by them.

Table 1. Composition of the Public Scoping Attendees

NO.	GROUP / SECTOR	ATTENDEES	NUMBER
1	LGU - Province of Marinduque	Juan John Fernandez Jr.	10
2		Edelito E. Mercene	
3		Arvin S. Saroza	
4		Rose Anne Llave	
5		Ed de Luna	
6		Felimon S. Castro Jr.	
7		Sonny L. Paglinawan	
8		Rolando M. Larracas	
9		Ryan Pastoral	
10		Arnel L. Morales	
11	LGU - Municipality of Buenavista	Ramon A. Quezon	7
12		Eduard L. Siena	
13		Rafael G. Sadiwa	
14		Joyce P. Turgo	
15		Melvin Vitto	
16		Ranel S. Castillo	
17		Liberto L. Mapacpac	
18	LGU - Barangay Bagtingon	Petronio Sanchez Jr.	3
19		Johnny C. Francisco	
20		Genie Lacdao	
21	BCD 1A Association	Morgito Alonsagay	2
22	Vegetable Grower Association	Teodora P. Seco	
23	Philippine National Police (PNP)	Erwin D. Lopez	2
24		Jay P. Malapit	

NO.	GROUP / SECTOR	ATTENDEES	NUMBER
25	DENR - PENRO	Ronald Matining	4
26		Joybert Mijares	
27		Emeterio M. Recto	
28		Carlo M. Watiwat	
29	DENR - EMB - Marinduque	Rolando Z. Capistrano	2
30		Michelle Macariola	
31	NIA MOMARO - IMO (Proponent)	Grace Manniquiz	11
32		Daniel Angelo Malabanan	
33		Anastacio Naling	
34		Dwelly Jane Morales	
35		Zyrhize G. Togonon	
36		Corazon M. Larcado	
37		Rogerlio Mayorga	
38		Patricia Mercado	
39		Albert D. Palencia	
40		Napoleon D. Samiin	
41		April Lalain R. Pelaez	
42	Grids, Inc. - SEIA Preparer	Mikaella C. Morada	6
43		Millben A. Bragais	
44		Marianne Suizo	
45		Jared Montañer	
46		Tristan Chaylee	
47		Bon Haley Gumabay	

2 OBJECTIVES OF THE PUBLIC SCOPING

The public scoping was conducted with the following objectives:

- Comply with the requirement in the EIA process being conducted for this project;
- To provide the public a chance to comment and indicate their insights on the potential environmental and socio-economic implications of the project;
- To identify and prioritize the resources (land, water, air and people) and relevant concerns/ issues to be considered in the EIA analyses of the project and;
- To provide opportunity for all “parties-at interest” to participate in the project’s EIA process.

3 PROGRAM ACTIVITIES

The participants of the public scoping started arriving in the venue at around 10:00 AM. The scoping formally opened at 10:30 AM and ended at 2:00 PM. Copy of the program is presented as Annex E.

3.1 Opening Ceremony

The agenda of the Public Scoping started with a prayer led by the President of BCD 1A Association, *Mr. Morgito Alonsagay,* followed by an audio-visual presentation for the singing of national anthem. The welcoming remarks were given by *Mr. Melvin Vitto,* Municipal Environment and Natural Resources Officer. The introduction of participants was led by *For. Mikaella C. Morada* (Preparer, GRiDS, Inc.) prior to the presentation of EIA Process, initial issues and concerns of the stakeholders, and preliminary impacts of the proposed project. A 3-hour open forum was allotted to the participants to raise their issues, concerns, and input to the SEIA study.

3.2 Presentation of EIA Process and Purpose of Public Scoping

The overview of the EIA process or activities to be undertaken by the proponent for the acquisition of ECC including the relevant laws, issuances, and the objectives of Public Scoping were presented by the representative from the EMB EIA – Marinduque, *Mr. Rolando Z. Capistrano*. Copy of presentation is presented as Annex F.

3.3 Presentation of the Project Description

The proponent was represented by *Engr. Anastacio Naling*, one of the Senior Engineers of NIA – MOMARO IMO. Engr. Naling provided the project overview, rationale, site development plan and maps showing the location and development plans, and summary of overall cost and annual allocation of the proposed project. Copy of the presentation is attached as Annex G.

3.4 Presentation of the Initial Issues and Concerns raised by the Stakeholders

Prior to the Public Scoping, NIA and GRIDS, Inc. conducted Information, Education, and Communication (IEC) activities for the project whereas, the summary of initial issues and concerns raised during the said activity was presented by the project leader from the preparer, *For. Milben A. Bragais*. This also serves as a review of what has already been raised and documented prior to the scoping. Copy of presentation is presented as Annex H.

3.5 Presentation of the Preliminary Impacts of the Proposed Project

GrIDS, Inc. Project Team Leader, *For. Milben A. Bragais* presented the initial predicted impacts of the project based on the initial assessment of the baseline condition of the proposed project site done by the Preparer. This is presented as Annex I.

3.6 Open Forum

For. Mikaella C. Morada started the open forum by sharing the house rules. She emphasized that the scoping will be documented, and their issues, concerns, and recommendations will be encoded by the preparer's team and will be shown on the screen projector for validation of the participants. Thus, before asking a question or sharing a concern, the participant should

identify himself/herself by stating first the name, barangay or organization representing and position.

During the open-forum, various issues, concerns, and recommendations were raised by the Municipal Mayor and heads of several provincial and municipal offices. The questions and the answers provided by the proponent and the preparer are summarized in the Table 2.

Table 2. Summary of Issues/Concerns raised by the Stakeholders and Response from the Proponent / Preparer

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Water	What is the main source the dam? ***Mr. Joybert Mijares*** *Forester, PENRO Marinduque*	Part of Gasan and Buenavista. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Land	So what is the name of the watershed? ***Mr. Joybert Mijares*** *Forester, PENRO Marinduque*	Caigangan Watershed. We named it as BSRIP IWS since it is a sub-watershed of Caigangan Watershed. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	How will we know what barangays are included in the watershed? Since they are directly affected by the project. ***Mr. Emeterio Recto*** SYEMS, DENR	As shown in the map presented, the proposed project's IWS falls within the municipalities of Gasan and Buenavista. The political units included five (5) barangays under their jurisdiction namely, Bagtingon, Malbog, Tambunan, Tabionan, and Bayuti. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Land, People	To maintain the water level/supply of the dam, what are the activities or interventions on upstream areas that supplies those that are in downstream areas? Is this included in the report? Even the affected communities and participants especially the IPs? ***Mr. Joybert Mijares*** *Forester, PENRO Marinduque*	Initial recommendation is for NIA to have a partnership with PAMB. In forested area, we suggest Assisted Natural Regeneration (ANR). Meanwhile, we suggest Agroforestry on private lands or A&D. We can collaborate with the communities through stewardship programs. Suggested activities/interventions depend on the land cover, land class, etc. Yes, sir. We have proposed areas. We suggest slope stabilization in riparian areas depending on the baseline characterization. This is included in the DMP. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Land	I recommend providing other activities aside from agroforestry and to use indigenous species and bamboo. ***Mr. Joybert Mijares*** *Forester, PENRO Marinduque*	I agree. We also have an experience with other projects: suggest specific indigenous species for the site with benefits, costing, propagation plans. Based on existing land cover, we identify the priority location for interventions. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	Additional suggestion is to give extra income for the affected community. During the conduct of seedling production, the community should be the one to propagate the seedling, and the proponent (NIA) will compensate them. ***Mr. Joybert Mijares*** *Forester, PENRO Marinduque*	Yes, it is one of our strategies included in the report. We'll ask the POs if they are willing to participate. Our plans are also participative. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Water	Where is the final drain of the dam? ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	Located in Tablas Strait. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Water	Please consider design, water capacity in terms of maximum and minimum levels of rain. Follow up: Meaning it is ungated? Where is the spillway located? So continuous overflow? ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	The declared maximum water level is the dam's maximum. The structure of the dam is overflowing meaning spillway. Excess water from the rain will overflow in the spillway. Yes, it is ungated. The spillway is on the right side. Yes, it is continuous. Its maximum is 105. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
People	People and communities will be affected downstream if the dam overflows due to rain. ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	If I'm not mistaken, 3 meters below crest of dam is maximum water level. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
People	It is supposed to be ungated. My concern is how sturdy the foundation of the ungated dam crest, so it won't collapse? ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	This is noted. We also included scenario building, mitigation measures, and the protocols in management plan/report. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Land	As much as possible, construct temporary facilities in locations where vegetation will not be affected.	I agree. With the existing data, potential locations for building

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		temporary facilities are in least affected areas. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Below the PAMB, it should be PENRO, not CENRO. ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	This is noted. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Municipality of Buenavista and should be in collaboration with DENR PAMB. ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	Duly noted. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	How are coconut farmers compensated? How about the coconut farmer integrated trust fund? And what about the National Greening Program (NGP), specifically regarding Pili and Guyabano, which dates back in 2013? How about the planted coconuts of the farmers? ***Mr. Johny Francisco*** *Barangay Kagawad*	Margins in coconut farm. There is an ongoing inventory in encroached protected areas. When it comes with NGP, we are still requesting specific data from NIA and will reflect on plan once acquired. We already have boundaries of the NGP sites and under validation. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Land	May we request shapefile of watershed and the NGP sites so, we'll know the affected areas. ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	Yes, we will provide. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	Was a public scoping conducted before? Is this required for the project for the application of ECC? What happened with the previous ECC? Please provide us guidelines for acquiring ECC. What is the purpose of the dam? ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Only consultation. Since it has lapsed for 5 years, they advise to apply for a new ECC. The purpose of the dam is to provide an irrigation system for Buenavista. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
Land, People	Majority of this project will benefit the rice fields of farmers from Gasan not Buenavista. Meaning it will not serve the purpose of providing service to farmers of Buenavista since 70 hectares of land to be covered by the proposed project are owned by farmers from Gasan while only 10 hectares are owned by the farmers of Buenavista. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
People	Is it properly coordinated with other concerned agencies like DENR? If this is properly coordinated this area was planted with *"Mojon"* last year for demarcation line. The purpose of the demarcation line is for the declaration of Marinduque Wildlife Sanctuary. What will happen to the sanctuary if we build a dam in this area? ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Yes. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
People	Please make proper coordination with concerned agencies to prevent wasting money/resources. For agencies, please consider the affected lands. Please finish the canal for the benefit of the community. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Yes. We are working on proper coordination with the concerned agencies for the proposed project. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	You are proposing ungated dam. How about the communities downstream? Please make a proper presentation of this project that will be easily understood by the general public. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	This is noted. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	Are there safety precautions, alarm, or any signal for safety of those downstream? The river channel is directly going to hit the community of Barangay Bagtingon. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Yes. This will be included in the Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) of the EIA Report to be submitted to EMB for their review and approval. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	My suggestion is, can we decrease the height of dam such as check dam. Since the foundation depend upon the height. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	
Land, People	You mentioned you will pay for the coconuts, how about the affected lands? It was not presented earlier but it was mentioned in the report that you will pay the affected land of 19 pesos per square meter. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	The majority of the vegetations at the proposed project are coconut palms in aggregation with some naturally growing trees, and perennial crops understory. The total inventory of crops and naturally growing species and estimate cost will be determined during the conduct of detailed survey. The estimated cost of crops are as follows:

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		Avocado Php 290.00 Banana Php 240.00 Cacao Php 230.00 Calamansi Php 260.00 Camansi Php 260.00 Chico Php 640.00 Coconut Php 390.00 Coffee Php 220.00 Jackfruit Php 830.00 Lanzones Php 460.00 Mabolo Php 330.00 Mango Php 1,650.00 Orange Php 240.00 Rambutan Php 180.00 Santol Php 620.00 Star apple Php 720.00 Sineguelas Php 300.00 Bamboo Php 410.00 Tamarind Php 350.00 Buri Php 280.00
People	It is important to heavily consider the community. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Yes. Socio concerns and potential impacts to the community adjacent the proposed project site is part of the EIA Study. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Correction. It is not Banlawin instead it is Manlawanin. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	This is noted. Will have it rectified with the draft EIA report and generated maps. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	The ECC is for the dam project not the line canal? ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	ECC Application is for both the construction of dam and line canal. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
	It seems that limited information was presented, so there are limited questions that can be asked. ***Mr. Melvin Vitto*** *MENRO, LGU Buenavista*	Yes. We already presented the result of our study on the baseline condition of the proposed project site during our pre-scoping activity and even with PAMB during their 1st En Banc Meeting. We missed to consider new set of participants for this activity/program because we assumed a similar audiefrom the previous presentation. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
People	The governor is in full support however social concerns must be addressed. While doing this scoping, the papers are being processed. How long will it take you [DENR] to issue an ECC?	Based on the EMB Guidelines, processing and approval/denial of the submitted requirements for the issuance of ECC are within 20 days upon receipt of the EMB Review Committee.

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
	Mr. Rolando Larracas *CAO IV, Office of the Governor*	***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Please present the old ECC. ***Mr. Melvin Vitto*** *MENRO, LGU Buenavista*	
	When will you [NIA] finish all the requirements? Please provide us a timeline. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Will prepare a tentative schedule of activities for the following months for the application of ECC of the proposed BSRIP to EMB and provide copy to all the concerned LGU's, organizations, and agencies. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	The construction cost of the line canal will increase because the price of materials rises every year, which means your computation of 80 million will increase next year. But the problem is the contract is awarded last year meaning the price index is not considered for the following years. Please consider the design. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	Yes. This is noted. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
	What is the process after the revisions? ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	There will be a technical scoping. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	When will be the next public scoping to evaluate and consider all suggestions?	It will require 1-2 weeks to ensure compliance with the report. The technical scoping will be scheduled after 10 days upon submission of the report. This will involve a Zoom meeting with EMB, during which we will furnish the required documents (with a 20-day approval process). Following approval, a public hearing will be conducted, after which the ECC will be issued. Within 1st to 2nd week of August we are hoping to submit the report. We have presented for three times already and presented the summary of the issues and concerns from the previous public scoping. Later on, we will present the shapefiles we have and from the concerned agencies. Laymanize presentation we're provided in IEC materials. Technical

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		scoping is almost complete. Air and noise sampling still ongoing. All questions and concerns are noted. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Request copies of the plans to distribute to the barangays. ***Mr. Johny Francisco*** *Barangay Kagawad*	Yes, we will provide. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	It was mentioned that the dam access is outside. I noticed that dam access is inside the dam. ***Mr. Emeterio Recto*** *SYEMS, DENR*	The requested data are still pending regarding the demarcation. We requested the data from DENR and will evaluate once we have the data. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Did you already file a cutting permit? ***Mr. Ed Del Luna*** *Provincial Agriculturist, PGM*	This is an on-going process by the proponent. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Did the DENR require an ECC for the line canal? ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista* Follow-up: Please read the terms and conditions before saying that the line canal is not part of the scope and coverage of the ECC. ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	Previously, an ECC was not required by the DENR for the line canal, but now an ECC is needed for the line canal because it is a component of the dam. ***Engr. Anastacio Naling*** Senior Engineer, NIA - Marinduque
	How are we going to streamline the processes to ensure the implementation of the project? It's up to the concerned offices to coordinate. ***Mr. Sonny Paglinawan*** *EA III, PGM*	
	Is the consultant aware that the line canal is not part/component of the overall project? ***Mr. Joybert Mijares*** *SFMS, PENRO Marinduque*	Yes, we are aware that the line canal is part of the component. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.
	Provide a calendar of activities by the end of the week and provide copies for all involved agencies. ***Hon. Eduardo Siena*** *Mayor, LGU Buenavista*	This is noted. We will provide the calendar of activities as well as the expected timeline. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
	Who will manage the dam the LGU or NIA? ***Mr. Melvin Vitto*** *MENRO, LGU Buenavista*	NIA will manage the dam. We will have a capacity building together with NIA. For comparison, we have the same structure in Sta Cruz (SRIS). We have a storage capacity. ***Engr. Daniel Angelo M. Malabanan*** Senior Engineer A, NIA – MOMARO IMO
	Make sure that you still invite the same audience. ***Mr. Melvin Vitto*** *MENRO, LGU Buenavista*	Yes, we have a different audience. We have presented the demographic profile and other baseline information in the previous public scoping. We'll make sure to include these on the next presentation. ***For. Milben A. Bragais*** Consultant, GRIDS, Inc.

3.7 Summary and Closing

For. Mikaella C. Morada reiterated that all necessary permits and proper coordination with all the concerned agencies will be done by both the preparer and the proponent prior to any activity. All the requested data and reports during the public scoping such as calendar of activities will be submitted to the office of the Mayor and other concerned parties as reference on the set of activities that will be done for the acquisition of Environmental Compliance Certificate (ECC) for the proposed project.

Furthermore, the results of the scoping will be documented and submitted to the EMB – MIMAROPRA Regional Office in order to secure a schedule for the technical scoping. Once the technical scoping has been completed, GrIDS, Inc.'s SEIA team of consultants will commence their data gathering on site.

On behalf of the NIA – MOMARO IMO, Engr. Daniel Angelo Malabanan gave the closing remarks. He reiterated that concerns and issues if any could be resolved through communication. The facilitator thanked all the participants and extended sincerest gratitude to the Municipality of Buenavista for the venue and assistance provided in preparation for the Public Scoping.

Photo documentation of the event is presented in Annex J.

4 ANNEXES

A – Request Letter of the Preparer to EMB - MIMAROPA for the Conduct of Public Scoping

B – Notice to Public Scoping by EMB – MIMAROPA

C – Receiving Copies of Invitation Letters to the Invited Stakeholders

D – Attendance Sheet

E – Program of the Public Scoping

F – Powerpoint Presentation – EIA Process

G – Powerpoint Presentation – Project Description

H – Powerpoint Presentation – Initial Issues and Concerns

I – Powerpoint Presentation – Preliminary Impacts

J – Photo Documentation

Annex A. Request Letter of the Preparer to EMB - MIMAROPA for the Conduct of Public Scoping

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GRIDS
mapping better decisions

05 July 2023

JOE AMIL M. SALINO
Director
DENR – Environmental Management Bureau,
MIMAROPA
Calapan, Oriental Mindoro

Subject: Request for Conduct of EIA Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – IV – B (MIMAROPA)

The National Irrigation Administration – MIMAROPA has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque.

GrIDS, Inc. and NIA – MIMAROPA have already started the Information, Education, and Communication (IEC) Campaign activities for the said project. We, therefore, would like to request for the conduct of Public Scoping preferably on **17th of July (Monday) at 10:00 AM in the Municipal Hall of Buenavista, Marinduque.**

Attached are the following documents as requirement for the conduct of the scoping:

- Proof of Conduct of the IEC
- Proposed list of invitees
- Draft invitation letters for the invited stakeholders
- IEC Materials
- Draft Presentation for the Public Scoping

Hoping for your favorable action on our request.

Very truly yours,

Milben A. Bragais
CEO / President
Geographic Innovations for
Development Solutions Inc.
Los Baños, Laguna

Annex B. Notice to Public Scoping by EMB – MIMAROPA

Department of Environment and Natural Resources
Environmental Management Bureau
MIMAROPA Region

NOTICE OF PUBLIC SCOPING

The **NATIONAL IRRIGATION ADMINISTRATION - MIMAROPA** has a proposed **BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT** to be located at **Barangay Bagtingon, Buenivista, Marinduque**.

Notice is hereby given to interested and concerned parties who wish to participate in the Public Scoping Activity that is scheduled on:

DATE / TIME	VENUE
26 July 2023 (Wednesday) / 10:00 AM (Registration starts at 9:30AM)	**Municipal Hall of Buenavista, Marinduque**

****Note: This meeting is following the interim guidelines (MC 2020-30) of the DENR EMB on the conduct of Public Participation during the State of National Emergency (Pandemic).*

Public Scoping is an early stage in the Environmental Impact Assessment Process where the proponent aims to provide an overview of the proposed project, present proposed action, and gather issues and concerns, and other relevant information to provide the scope of work and terms of reference for the preparation of Environmental Impact Statement.

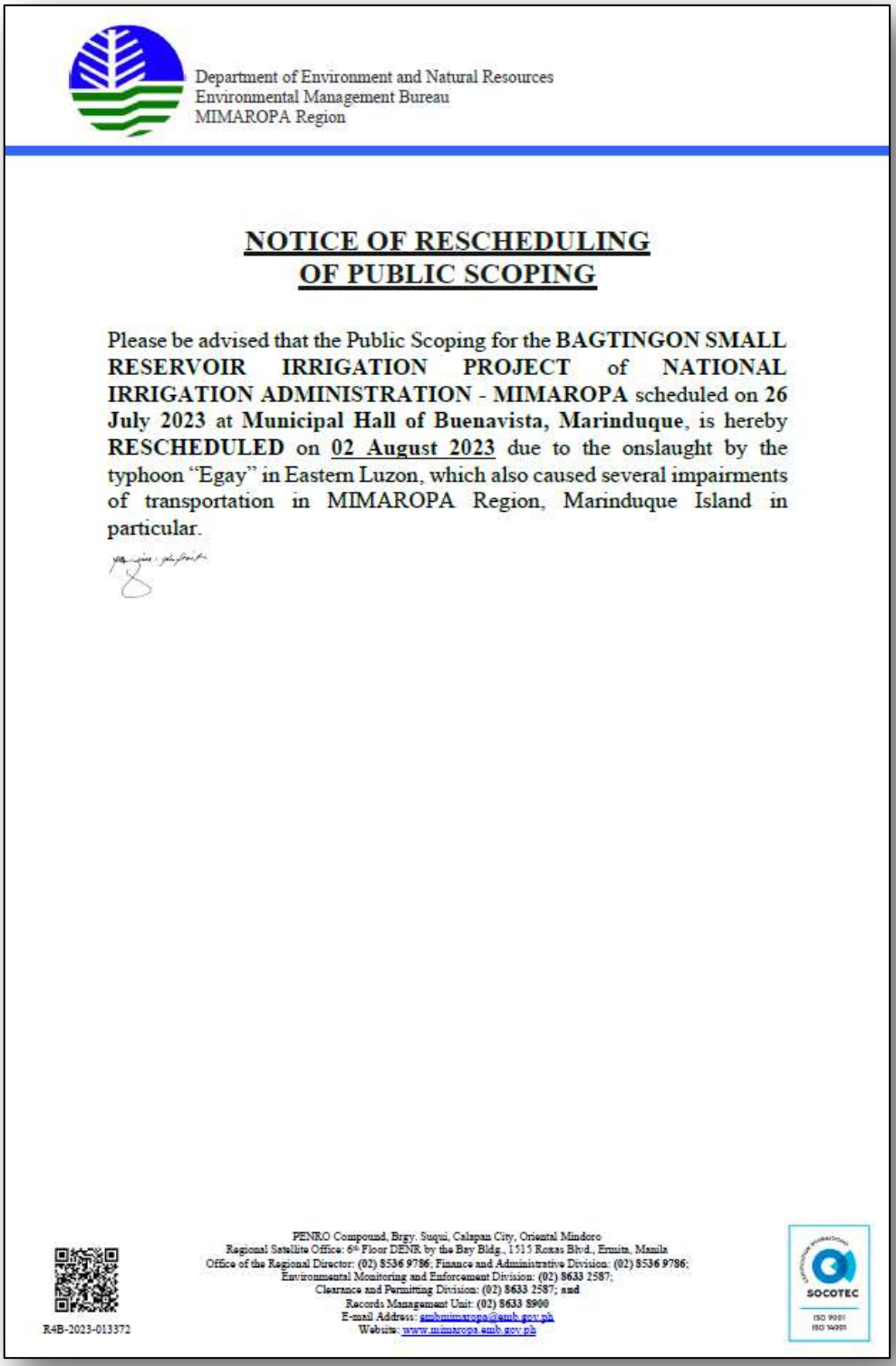
All interested parties, organizations, and agencies are encouraged to provide inputs during the Public Scoping and public review periods and provide comments to **National Irrigation System (NIS)** and **Geographic Innovations for Development Solutions, Inc. (GRIDs)** through emails at mimaropa@nia.gov.ph and grids.inc.ph@gmail.com, copy furnished EMB MIMAROPA Regional Office through email at eia.embr4b@gmail.com and r4brecord@emb.gov.ph.

A copy of the **Project Description Report** is downloadable at our website: ***mimaropa.emb.gov.ph*** (kindly access the Notice of Public Scoping link found at the lower-left portion of our website).

R4B-2023-013372

PENRO Compound, Brgy. Suqui, Calapan City, Oriental Mindoro
Regional Satellite Office: 6th Floor DENR by the Bay Bldg., 1515 Roxas Blvd., Ermita, Manila
Office of the Regional Director: (02) 8536 9786; Finance and Administrative Division: (02) 8536 9786;
Environmental Monitoring and Enforcement Division: (02) 8633 2587;
Clearance and Permitting Division: (02) 8633 2587; and
Records Management Unit: (02) 8633 8900
E-mail Address: embmimaropa@emb.gov.ph
Website: www.mimaropa.emb.gov.ph

SOCOTEC
ISO 9001
ISO 14001



Department of Environment and Natural Resources
Environmental Management Bureau
MIMAROPA Region

NOTICE OF RESCHEDULING OF PUBLIC SCOPING

Please be advised that the Public Scoping for the **BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT** of **NATIONAL IRRIGATION ADMINISTRATION - MIMAROPA** scheduled on **26 July 2023** at **Municipal Hall of Buenavista, Marinduque**, is hereby **RESCHEDULED** on **02 August 2023** due to the onslaught by the typhoon "Egay" in Eastern Luzon, which also caused several impairments of transportation in MIMAROPA Region, Marinduque Island in particular.

R4B-2023-013372

PENRO Compound, Brgy. Suqui, Calapan City, Oriental Mindoro
Regional Satellite Office: 6th Floor DENR by the Bay Bldg., 1515 Roxas Blvd., Ermita, Manila
Office of the Regional Director: (02) 8536 9786; Finance and Administrative Division: (02) 8536 9786;
Environmental Monitoring and Enforcement Division: (02) 8633 2587;
Clearance and Permitting Division: (02) 8633 2587; and
Records Management Unit: (02) 8633 8900
E-mail Address: embmimaropa@emb.gov.ph
Website: www.mimaropa.emb.gov.ph

SOCOTEC
ISO 9001
ISO 14001

Annex C. Receiving Copies of Invitation Letters to the Invited Stakeholders

14 July 2023

MS. ANALIE MAYORES
Punsulan
Sandigan Kabuhalan
Buenavista, Marinduque

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Ms. Mayores,

We would like to invite you and/or any representative from your organization to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

The public scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System (PEISS) concerning the proponent's application for an Environmental Compliance Certificate (ECC). Representatives from the proponent will present the proposed project description and its initial potential impacts. Stakeholders within the concerned communities will be allowed to express freely their concerns, support, or questions to identify the most significant issues and impacts of the Proposed Project that should be addressed in the Environmental Impact Assessment (EIA) Study.

The Public Scoping will be held on **26th of July 2023 (10:00 AM)** in the **Municipal Hall of Buenavista, Marinduque**.

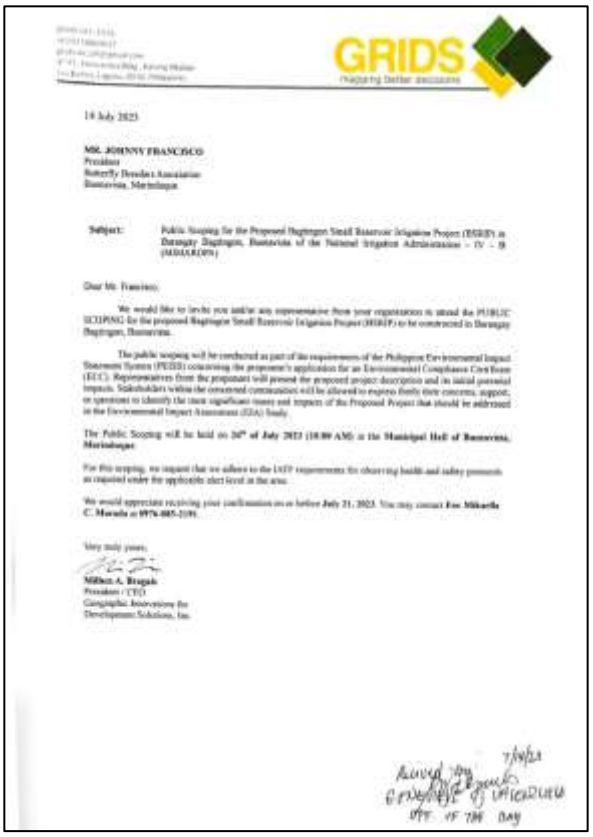
For this scoping, we request that we adhere to the IATF requirements for observing health and safety protocols as required under the applicable alert level in the area.

We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for Development Solutions, Inc.

Received by:
[illegible]
Date of the day



14 July 2023

MR. JOHNNY FRANCISCO
President
Butterfly Breeder's Association
Buenavista, Marinduque

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Francisco,

We would like to invite you and/or any representative from your organization to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for Development Solutions, Inc.

Received by:
[illegible]
Date of the day

14 July 2023

HON. MARIO CASIMALLIDO FRANCISCO II
Barangay Chairman
Barangay Bagtingon
Buenavista, Marinduque

Attention: **HON. JOHNNY FRANCISCO**
HON. HARRY L. CONFESOR
HON. JOSEPH J. SIENA
HON. LYDIA S. SOLIVEN
HON. BEATRIZ O. ZULUETA
HON. PETRONIO S. SANCHEZ JR
HON. GENEVIEVE O. VALENZUELA
Barangay Councilors

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Chairman Francisco II,

We would like to invite you, your council and representative of your people's organization (PO) to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

The public scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System (PEISS) concerning the proponent's application for an Environmental Compliance Certificate (ECC). Representatives from the proponent will present the proposed project description and its initial potential impacts. Stakeholders within the concerned communities will be allowed to express freely their concerns, support, or questions to identify the most significant issues and impacts of the Proposed Project that should be addressed in the Environmental Impact Assessment (EIA) Study.

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We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for Development Solutions, Inc.

7/14/23
Received by:
[illegible]
Date of the day

14 July 2023

HON. EDWARD L. SIENA
City Mayor
Buenavista, Marinduque

Attention: **HON. DAVID G. VITTO**
City Vice Mayor

MR. ELEANOR GRATE
Municipal Health Office

MR. RANEL CASTILLO
City Planning & Development Coordinator Officer

ENGR. RAMON QUIANO
Municipal Engineer

MR. MELVIN VITTO
Municipal Environment and Natural Resources Officer

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Hon. Mayor Siena,

We would like to invite you, your council and representative of your people's organization (PO) to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

The public scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System (PEISS) concerning the proponent's application for an Environmental Compliance Certificate (ECC). Representatives from the proponent will present the proposed project description and its initial potential impacts. Stakeholders within the concerned communities will be allowed to express freely their concerns, support, or questions to identify the most significant issues and impacts of the Proposed Project that should be addressed in the Environmental Impact Assessment (EIA) Study.

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We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for Development Solutions, Inc.

RECEIVED
BY:
DATE: 7/14/2023
12:30 pm
MAYOR'S OFFICE

14 July 2023

MS. IMELDA M. DIAZ
DENR - Provincial Environment and
Natural Resources Officer
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Ms. Diaz,

We would like to invite you and/or any representatives from your good office to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

The public scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System (PEISS) concerning the proponent's application for an Environmental Compliance Certificate (ECC). Representatives from the proponent will present the proposed project description and its initial potential impacts. Stakeholders within the concerned communities will be allowed to express freely their concerns, support, or questions to identify the most significant issues and impacts of the Proposed Project that should be addressed in the Environmental Impact Assessment (EIA) Study.

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We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Dragon
President / CEO
Geographic Innovations for
Development Solutions, Inc.

14 July 2023

PCOL CHRISTOPHER D. MELCHOR
Provincial Director
Philippine National Police (PNP)
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Melchor,

We would like to invite you to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Dragon
President / CEO
Geographic Innovations for
Development Solutions, Inc.

13 July 2023

MR. JUAN B. FERNANDEZ
Provincial Disaster Risk Reduction &
Management Officer
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Fernandez,

We would like to invite you and/or any representative from your good office to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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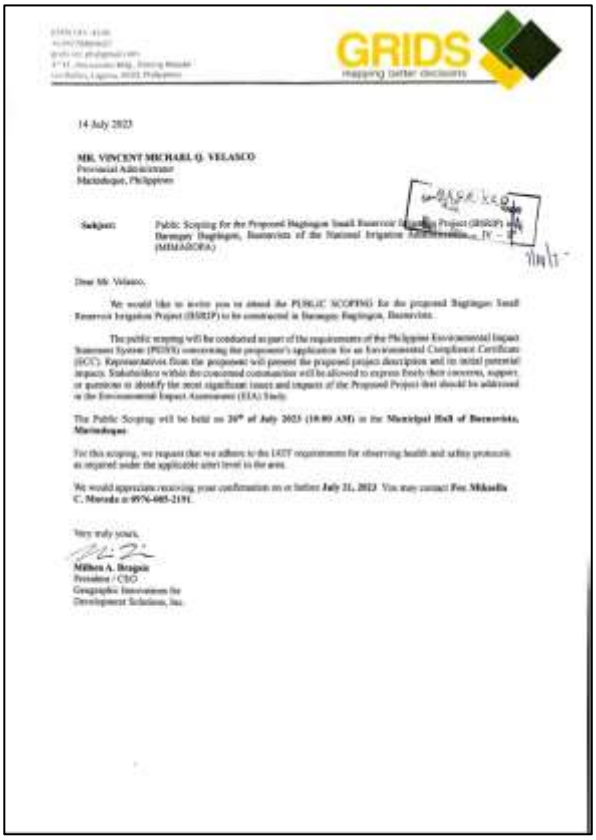
We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fee Mikaella C. Morada** at **0976-085-2191**.

Very truly yours,

Milben A. Dragon
President / CEO
Geographic Innovations for
Development Solutions, Inc.



14 July 2023

MR. VINCENT MICHAEL Q. VELASCO
Provincial Administrator
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Velasco,

We would like to invite you to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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Very truly yours,

Milben A. Dragon
President / CEO
Geographic Innovations for
Development Solutions, Inc.

14 July 2023

MS. MARIAN C. CUNANAN, ENP
Provincial Planning and Development Officer
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Ms. Cunanan,

We would like to invite you and/or any representative from your good office to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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For this scoping, we request that we adhere to the IATF requirements for observing health and safety protocols as required under the applicable alert level in the area.

We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fac. Mikaella C. Maruda** at **0976-085-2191**.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for
Development Solutions, Inc.

14 July 2023

MR. JOEL A. RECELLA
Provincial Social Welfare Development Officer
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Recella,

We would like to invite you and/or any representative from your good office to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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We would appreciate receiving your confirmation on or before **July 21, 2023**. You may contact **Fac. Mikaella C. Maruda** at **0976-085-2191**.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for
Development Solutions, Inc.

RECEIVED
PSWDO
Date: JUL 14 2023
Time: 2:15
By:

13 July 2023

ENGR. EDGLIDO E. MERCENE
Provincial Government Environment &
Natural Resources Officer
Marinduque, Philippines

Subject: Public Scoping for the Proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) in Barangay Bagtingon, Buenavista of the National Irrigation Administration – IV – B (MIMAROPA)

Dear Mr. Mercene,

We would like to invite you to attend the PUBLIC SCOPING for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista.

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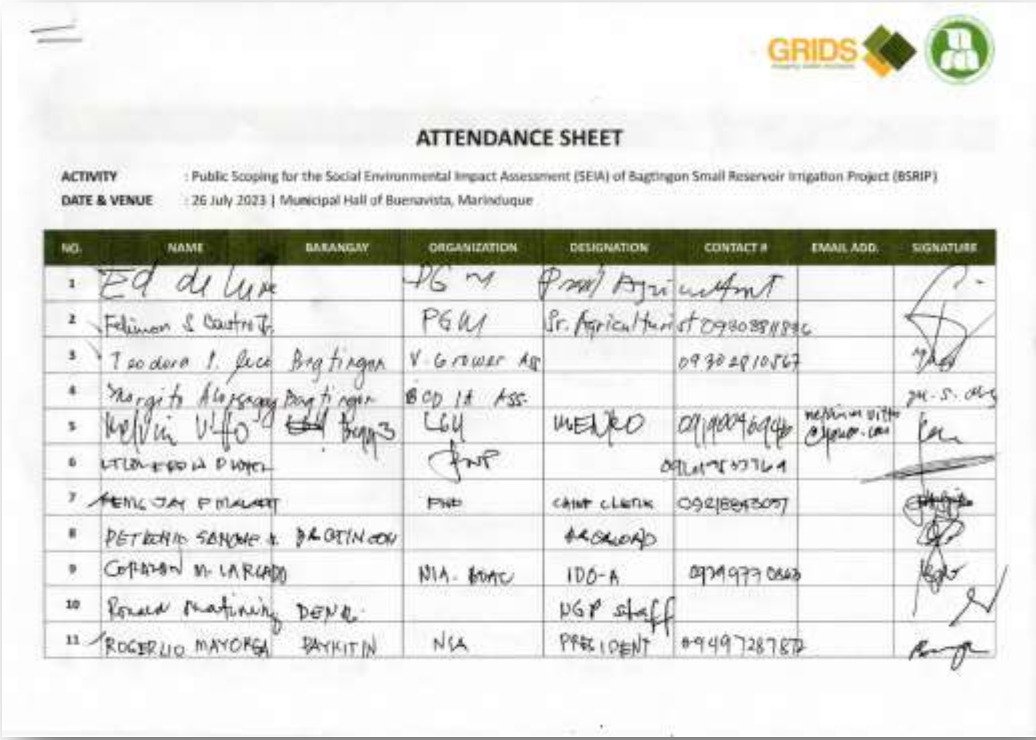
Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for
Development Solutions, Inc.

Annex D. Attendance Sheet



ATTENDANCE SHEET

ACTIVITY : Public Scoping for the Social Environmental Impact Assessment (SEIA) of Bagtingon Small Reservoir Irrigation Project (BSRIP)
DATE & VENUE : 26 July 2023 | Municipal Hall of Buenavista, Marinduque

NO.	NAME	BARANGAY	ORGANIZATION	DESIGNATION	CONTACT #	EMAIL ADD.	SIGNATURE
1	Ed de Lu[illegible]		PG [illegible]	Prov'l Agriculturist			[signature]
2	Feliciano S. Castro Jr.		PGM	Sr. Agriculturist	[illegible]		[signature]
3	Teodoro I. [illegible]	Bagtingon	V. Grower As[illegible]		0930 2810567		[signature]
4	[illegible]	Bagtingon	BCD IA Ass.				[signature]
5	Melvin V[illegible]	Bagtingon	LGU	MENRO	[illegible]	[illegible]@yahoo.com	[signature]
6	[illegible]		[illegible]		[illegible]		[signature]
7	[illegible]		PNP	Chief Clerk	[illegible]		[signature]
8	[illegible]	Bagtingon		Ar[illegible]			[signature]
9	Corazon M. Larrado		NIA - [illegible]	IDO-A	[illegible]		[signature]
10	Ronald Matining	DENR		NGP Staff			[signature]
11	Rogerlio Mayorga	Daykitin	NIA	President	[illegible]		[signature]

NO.	NAME	BARANGAY	ORGANIZATION	DESIGNATION	CONTACT #	EMAIL ADD.	SIGNATURE
12	Patricia Mercado	Daykitin	NIA	Secretary	[illegible]		[signature]
13	Joybert Mi[illegible]	[illegible]	DENR	SFMS	[illegible]		[signature]
14	Emeterio M. Recto		DENR	SVEMS	[illegible]		[signature]
15	[illegible]		NIA-Marinduque	IDO-A	[illegible]		[signature]
16	Rafael C. [illegible]	Daykitin	LGU-M.A.O.	Agricultural Technologist	[illegible]		[signature]
17	Carlo M. [illegible]	DENR - [illegible]	DENR	Forest Technician II	[illegible]		[signature]
18	Zyrhize C. Tagonon		NIA	Foreman A	[illegible]		[signature]
19	Rolando Z. Capistrano		DENR-EMB	Chief, EMS-W'[illegible]	[illegible]		[signature]
20	Joyce P. [illegible]	Malinao	LGU-MAO	AEW	[illegible]		[signature]
21	Sonny L. Paglinawan	[illegible]	PGM	EA III	[illegible]		[signature]
22	Rolando Larracas		Office of the Governor	CAO IV			[signature]
23	[illegible] Pastoral		PGO	[illegible]			[signature]
24	[illegible]	[illegible]	DENR-EMB	[illegible]	[illegible]		[signature]
25	Johnny F. [illegible]	[illegible]	Buffalo Carabao Brgy. [illegible]	President Comm. [illegible]			[signature]
26	Genie Lacdao	Daykitin		Treasurer			[signature]

NO.	NAME	BARANGAY	ORGANIZATION	DESIGNATION	CONTACT #	EMAIL ADD.	SIGNATURE
27	Arnel L. Morale		PDO	PDO IV	09[illegible]		
28	[illegible]		[illegible]	[illegible]	09[illegible]		
29	Juan John Fernandez Jr.		PDRRMO	PDRRMO	09[illegible]		
30	[illegible]			NIA	09[illegible]		
31	[illegible]		NIA	[illegible]	09[illegible]		
32	RAMIEL A. CASTILLO		MPDO	MPDC	09[illegible]		
33	[illegible]		PC [illegible]	[illegible]	09[illegible]		
34	[illegible]		PG-ENRO	PEO III	09[illegible]		
35	[illegible]		PG-ENRO	AA 1	09[illegible]		
36	[illegible]		[illegible]	[illegible]	09[illegible]		
37	[illegible]		[illegible]	[illegible]	09[illegible]		
38	[illegible]		[illegible]		09[illegible]		
39	Mikaella C. Maceda		GRIDS, Inc.	Senior Environmental Mngt. Specialist	09260852191		
40	Wilbert P. Braganza		GRIDS, Inc.	Project Leader	0927 [illegible]		
41	Marlene Suiso		GRIDS, Inc.	Junior Environmental Mngt. Specialist	09260852191		

Annex E. Program of Activities

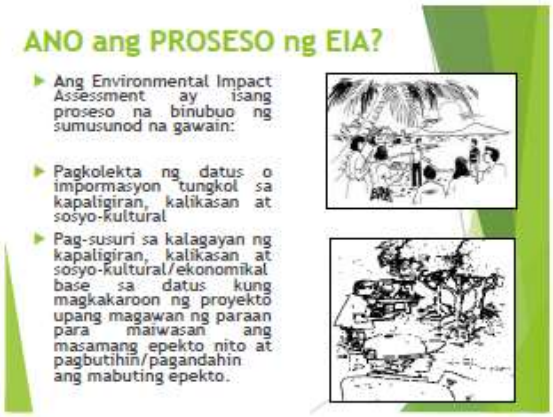
PROGRAM OF ACTIVITIES

TIME	ACTIVITY	SPEAKER
10:00 AM	Opening Ceremony Invocation & National Anthem	
	Welcome Remarks	MELVIN VITTO Municipal Environment and Natural Resources Officer
10: 15 AM	Acknowledgement of guest and participants	FOR. MIKAELLA MORADA GrIDS, Inc.
10: 15 AM	EIA Process and Purpose of Scoping	ROLLY CAPISTRANO EMB - MIMAROPA
10: 30 AM	Project Description Presentation	ENGR. ANASTACIO NALING NIA MARINDUQUE – SENIOR ENGINEER
10: 45 AM	Presentation of Initial Issues and Concerns	FOR. MILBEN A. BRAGAIS GrIDS, Inc.
11: 00 AM	Presentation of Preliminary Impacts of the Project	FOR. MILBEN A. BRAGAIS GrIDS, Inc.
11:15 AM	Presentation of House Rules on the Conduct of the Public Scoping / Open Forum	FOR. MIKAELLA MORADA GrIDS, Inc.
	Summary of Issues and Concerns Way Forward and Next Steps	
11:45 AM	Closing	MARIO CASBALLIDO FRANCISCO II Barangay Chairman, Bagtingon

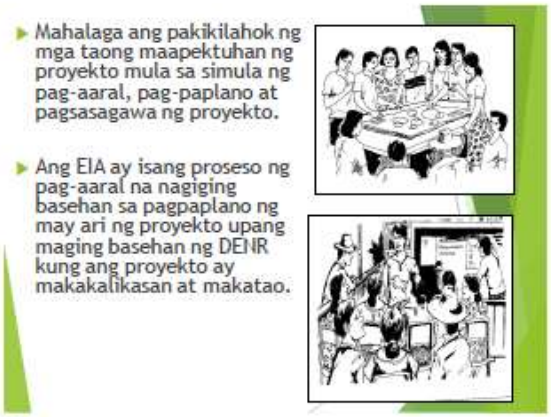
REPUBLIC OF THE PHILIPPINES
ENVIRONMENTAL MANAGEMENT BUREAU

Annex F. Powerpoint Presentation – EIA Process

1



2



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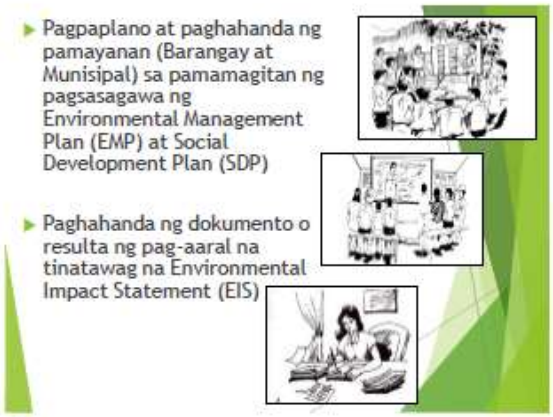

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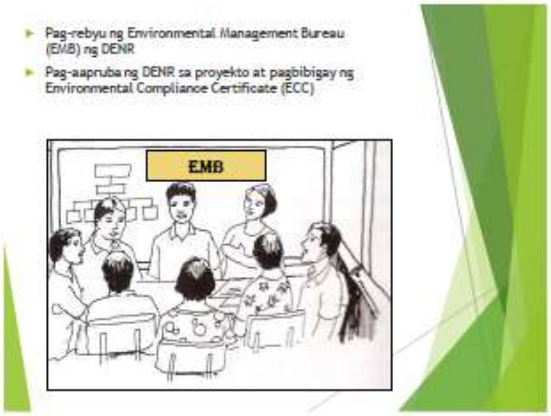

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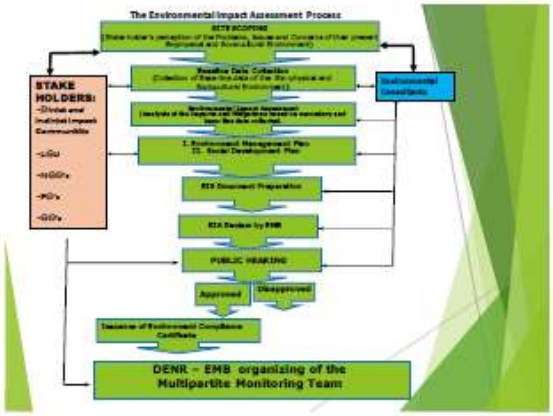

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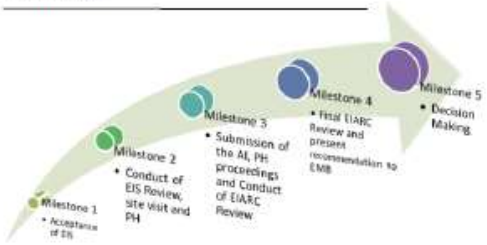
REPUBLIC OF THE PHILIPPINES
ENVIRONMENTAL MANAGEMENT BUREAU

NEXT STEPS/
WAY FORWARD

1

Department of Environment and Natural Resources | Environmental Management Bureau

TIMELINE



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Department of Environment and Natural Resources | Environmental Management Bureau

CONTACT DETAILS:

JOE AMIL M. SALINO
REGIONAL DIRECTOR

EnP. NICOLE YURI V. DORADO
OIC, CLEARANCE AND PERMITTING DIVISION

Telephone No.: (02) 8633 – 2587 / (02) 8536 - 9786
Email Address:
embmimaropa@emb.gov.ph or
rb4cpd@emb.gov.ph

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Department of Environment and Natural Resources | Environmental Management Bureau

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Annex G. Powerpoint Presentation – Project Description

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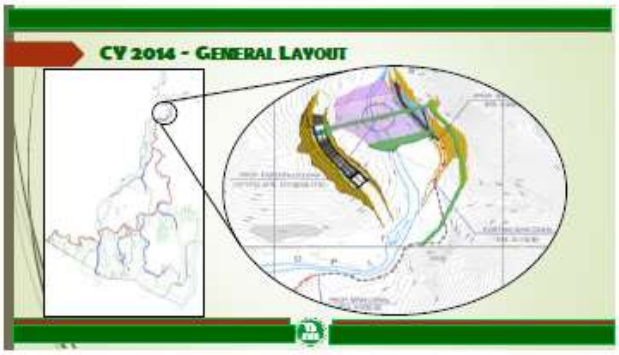

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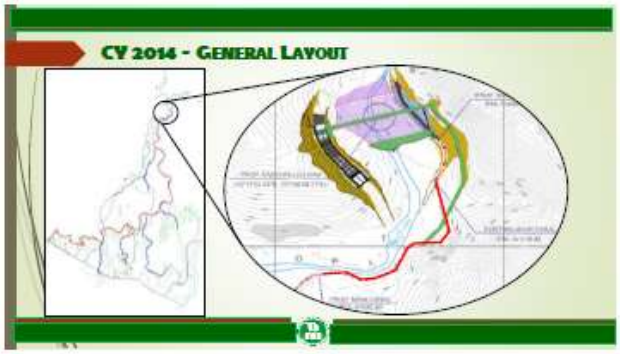

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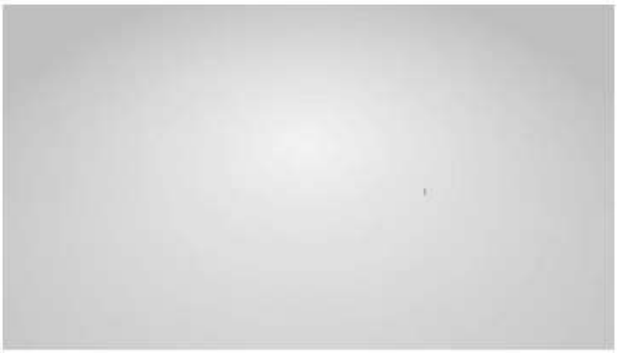

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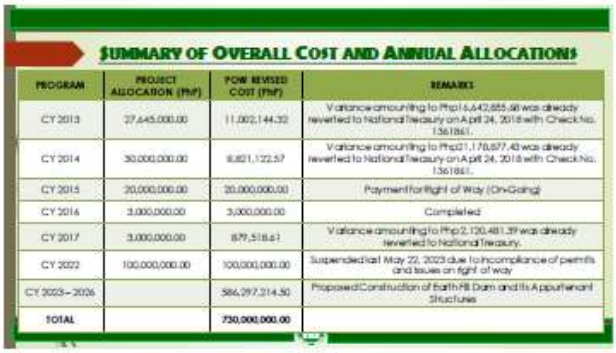

SUMMARY OF OVERALL COST AND ANNUAL ALLOCATIONS

PROGRAM	PROJECT ALLOCATION (Php)	POW REVISED COST (Php)	REMARKS
CY 2013	27,645,000.00	11,002,144.32	Variance amounting to Php16,642,855.68 was already reverted to National Treasury on April 24, 2018 with Check No. 1361861.
CY 2014	30,000,000.00	8,821,122.57	Variance amounting to Php21,178,877.43 was already reverted to National Treasury on April 24, 2018 with Check No. 1361861.
CY 2015	20,000,000.00	20,000,000.00	Payment for Right of Way (On-Going)
CY 2016	3,000,000.00	3,000,000.00	Completed
CY 2017	3,000,000.00	879,518.61	Variance amounting to Php2,120,481.39 was already reverted to National Treasury.
CY 2022	100,000,000.00	100,000,000.00	Suspended last May 22, 2023 due to incompliance of permits and issues on right of way
CY 2023 – 2026		586,297,214.50	Proposed Construction of Bath Rib Dam and its Appurtenant Structures
TOTAL		730,000,000.00	

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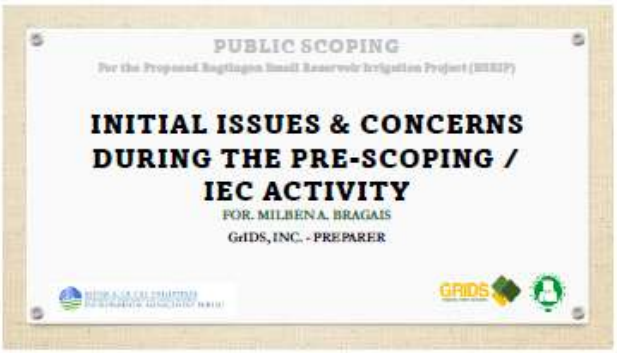
Annex H. Powerpoint Presentation – Initial Issues and Concerns



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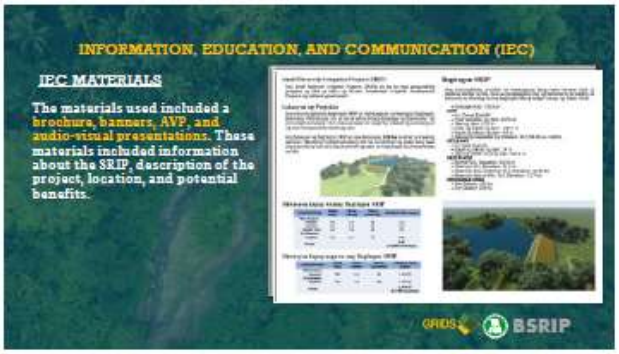

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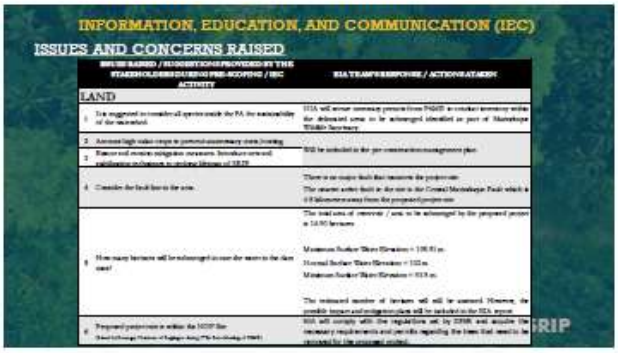

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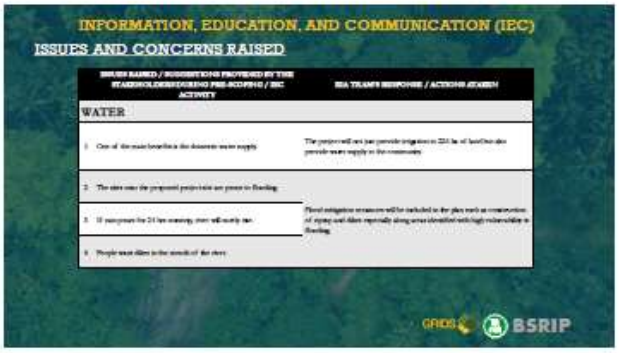

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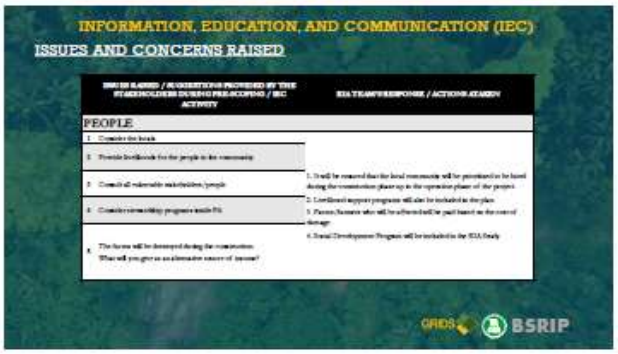
INFORMATION, EDUCATION, AND COMMUNICATION (IEC)
ISSUES AND CONCERNS RAISED
PEOPLE
GRIDS
BSRIP

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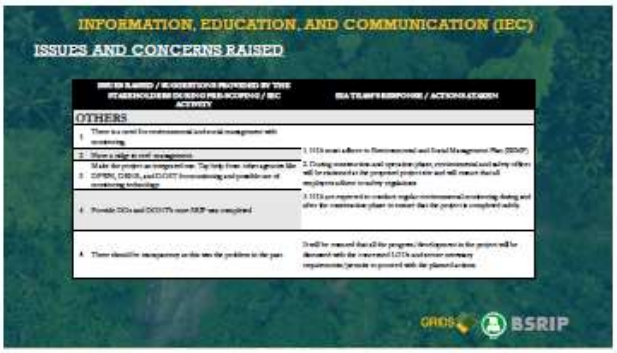
INFORMATION, EDUCATION, AND COMMUNICATION (IEC)
ISSUES AND CONCERNS RAISED
OTHERS
GRIDS
BSRIP

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Annex I. Powerpoint Presentation – Preliminary Impacts

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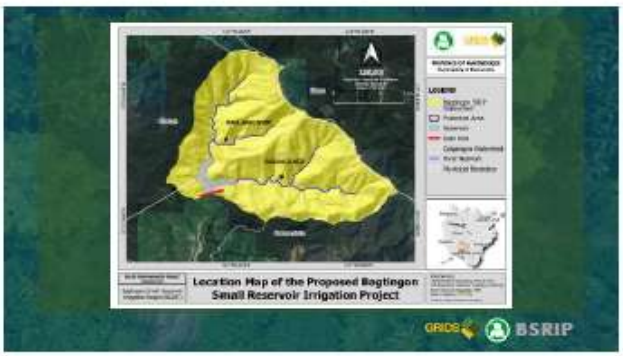

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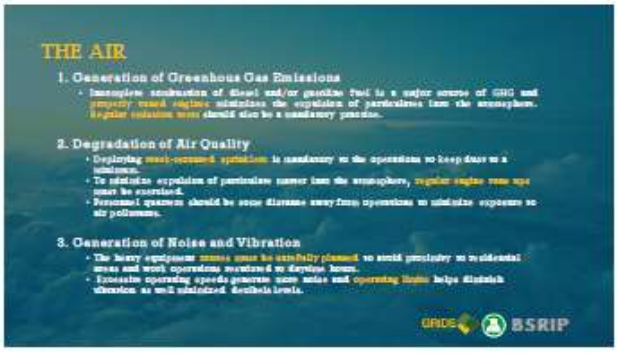

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THE WATER
1. Change in Drainage Morphology/Flood Inducement/Reduction in Stream Volumetric Flow
2. Surface Water Quality Degradation
3. Ground Water Quality Degradation
4. Long-term Water Security Concerns
GRIDS
BSRIP

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THE PEOPLE
1. Threat to Public Health and Safety
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ENVIRONMENTAL MANAGEMENT PLAN
Mitigating/Enhancement Measures for the Abandonment Phase
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THE LAND
THE WATER
THE PEOPLE

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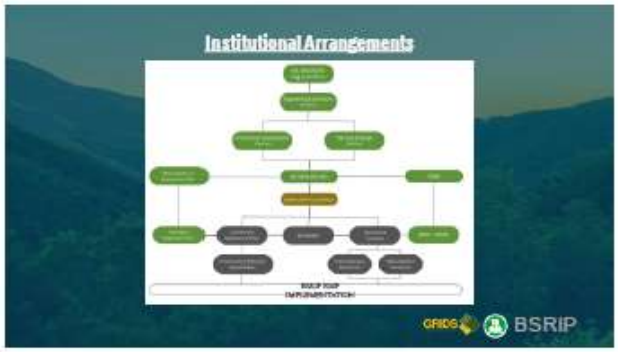
Institutional Arrangements
GRIDS
BSRIP

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Annex J. Photo Documentation

The venue of the public scoping at the Municipal Hall of Buenavista

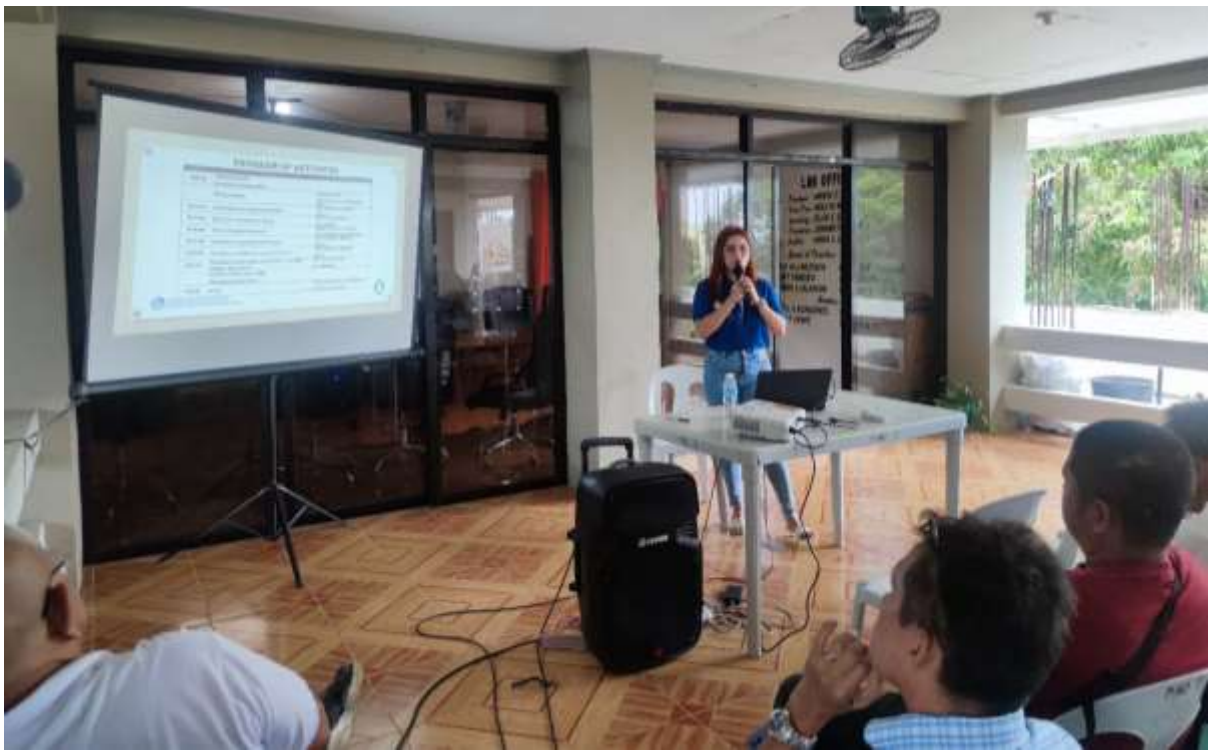
Registration of the participants for the Public Scoping

Participants prior to the start of the Public Scoping

Public Scoping started with a prayer led by the President of BCD 1A Association, ***Mr. Morgito Alonsagay***.

Mr. Melvin Vitto, Municipal Environment and Natural Resources Officer deliver the Opening Remarks

Acknowledgement of guests/participants by introducing themselves individually. They were instructed to state their name, office/organization they are representing, and their designation.



For. Mikaella C. Morada from GRiDS, Inc. acted as the facilitator for the Public Scoping and discussed the flow of activities for the said program.

Mr. Rolly Capistrano, Officer-In-Charge from DENR – EMB Marinduque presented the EIA Process and the Objective of Public Scoping

Engr. Anastacio Naling, one of the Senior Engineers from NIA – MOMARO IMO presented the project profile.

For. Milben A. Bragais presented the summary of issues/concerns raised by the stakeholders during the IEC Activities

For. Milben A. Bragais also led the presentation of Preliminary Impacts of the proposed project based on the preparer's initial assessment on the proposed project site.

For. Mikaella C. Morada discussed the house rules and served as the facilitator during the Open Forum

For. Joybert Mijares from DENR-PENRO Marinduque shoot the first question during the Open Forum

Councilor Johnny Francisco requested a copy of the management plans for the proposed project to be distributed to the affected barangays / communities.

Mr. Rolando Larracas, CAO IV from the Office of Governor asked about the timeline of activities until the issuance of ECC to the proponent.

Municipal Mayor of Buenavista***, Hon. Eduardo Siena*** asked for clarification on the detailed plan that will be within their Municipality and share his recommendation on the proposed project on how it can serve the purpose.

Senior Engineer from NIA – MOMARO IMO, ***Engr. Daniel Angelo Malabanan*** deliver the Closing Remarks and reiterate that all the issues / concerns raised by the participants will be taken into consideration and that all the necessary permits and proper coordination with all the concerned agencies will be done prior any activity for the proposed project.

11.9 Supplemental IEC Report

GRIDS
mapping better decisions

SUPPLEMENTAL IEC REPORT

Bagtingon Small Reservoir Irrigation Project (BSRIP)

Prepared by:
Geographic Innovations for Development Solutions, Inc.

January 2024

TABLE OF CONTENTS

LIST OF TABLES

1 INTRODUCTION

The Technical Scoping for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) was conducted on 01 September 2023 via google meet. The said scoping was facilitated by the project case handler from EMB MIMAROPA Region, *Engr. John Junico B. Udal*. The attendees are representatives from the proponent, preparer, and concerned LGU Offices. The table below shows the list of attendees per agency / office.

Table 1. Composition of the Technical Scoping Attendees

DESIGNATION	NAME	AGENCY / OFFICE
EMB - MIMAROPA		
EIARC Chairperson	Engr. Jose Reynato M. Morente	EMB MIMAROPA Region
EIARC Members	Nicole Yuri V. Dorado	
Resource Persons	Dan Goodwin S. Borja Pablito M. Estorque, Jr. Rolando Z. Capistrano	
Case Handler, EIA Personnel	Engr. John Junico B. Udal	
PROJECT PROPONENT		
EOD Manager	Engr. Lowell L. Lozano	NIA MIMAROPA
OIC / Sr. Engineer A.	Engr. Daniel Angelo Malabanan	NIA Marinduque PIO
Hydrologist	Engr. Ruby Angelie C. Villanueva	NIA MIMAROPA
Sr. Engineer A.	Engr. Anastacio L. Naling, Jr.	NIA Marinduque PIO
Engg. Assistant A	Engr. Zyrhize G. Togonon	NIA Marinduque PIO
Environmental Specialist B	For. Mary Grace P. Maniquiz	NIA – Central Office
EIA PREPARER / CONSULTANT		
Project Leader	For. Milben A. Bragais	GRIDS, Inc.
Junior Environmental Management Specialist	For. Mikaella C. Morada	GRIDS, Inc.
OTHER STAKEHOLDERS		
MENR Officer	Melvin Vitto	LGU – Municipality of Buenavista
Supervising EMS	PASu Emeterio M. Recto	PENRO Marinduque
SFMS	For. Joybert Mijares	PENRO Marinduque
Forest Technician II	Carlo Watiwat	PENRO Marinduque

During the Technical Scoping, it was agreed that the proponent and preparer will conduct supplemental IEC activities covering the direct and indirect impact areas by the proposed BSRIP. The proponent and preparer should comply with the submission of the revised Project Description Report (PDR) and supplemental IEC report before EMB MIMAROPA proceeds with the endorsement of Technical Scoping Checklist.

Invitation letters were sent out to the officials, group leaders, and major stakeholders of the selected barangays identified as direct/indirect impact areas, namely, (1) Tabionan situated in the Municipality of Gasan, (2) Caigangan, (3) Daykitin, (4) Malbog, (5) Uno, (6) Dos, (7) Tres, (8) Quatro, and (9) Bagtigon in the Municipality of Buenavista. While Barangay Bagtingon had previously been invited in the initial public scoping, they were re-invited due to the presence of newly elected officials. These sessions occurred on November 24, 2023, and December 13, 2023, at the Municipal Halls of Gasan and Buenavista, respectively. Signed receipt copy is presented as Annex A & Annex B.

The said activity was initiated by the proponent, National Irrigation Administration (NIA) – MOMARO Irrigation Management Office (IMO) together with its Social Environmental Impact Assessment (SEIA) preparer – the Geographic Innovations for Development Solutions, Inc. (GrIDS, Inc.). The preparer, represented by For. Mikaella C. Morada, facilitated the program.

The project orientation was attended by a total of eighty (80) individuals. Out of 80, 25 are representatives from Gasan and 55 are from Buenavista. The attendees are representatives from the proponent, preparer, various municipal offices, and barangay officials of the host local government units (LGUs). Table 2 below shows the number of participants per group / sector while Annex C shows the attendance signed by them. Brochures (Annex D) discussing the project profile were also provided to the participants in the registration booth upon signing the attendance sheet.

This diverse participation underscores the importance of inclusive collaboration and stakeholder engagement in the early stages of the project, ensuring that various perspectives and concerns are considered and addressed.

Table 2. Composition of the IEC Attendees per Municipality

NO.	GROUP / SECTOR	OFFICE	NUMBER
Municipality of Gasan			
1	LGU – Municipality of Gasan	Municipal Agricultures Office	2
		Municipal Disasters Risk Reduction and Management Office	2
		Municipal Engineering Office	2
2	LGU – Barangay Tabionan		10
3	NIA MOMARO - IMO (Proponent)		3
4	Grids, Inc. - SEIA Preparer		6
			25
Municipality of Buenavista			
1	LGU – Municipality of Buenavista	Municipal Environment & Natural Resources Office	1
		Municipal Agricultures Office	1
2	LGU – Barangay Malbog		9
3	LGU – Barangay Caigangan		12
4	LGU – Barangay Bagtingon		3
5	LGU – Barangay Daykitin		7
6	LGU – Barangay Tres		10
7	LGU – Barangay Dos		5
8	NIA MOMARO - IMO (Proponent)		3
9	Grids, Inc. - SEIA Preparer		4
			55

2 OBJECTIVES OF THE IEC

The Information, Education, and Communication Campaign was conducted with the following objectives:

- Comply with the requirement in the EIA process being conducted for this project;
- To provide the public a chance to comment and indicate their insights on the potential environmental and socio-economic implications of the project;
- To identify and prioritize the resources (land, water, air and people) and relevant concerns/ issues to be considered in the EIA analyses of the project and;
- To provide opportunity for all "parties-at interest" to participate in the project's EIA process.

3 PROGRAM ACTIVITIES

Participants from both municipalities began arriving at the venue around 10:00 AM for the IEC. The formal commencement of the scoping took place at 10:30 AM and concluded at 2:00 PM. Copy of the program flow is presented as Annex E.

3.1 Opening Ceremony

The IEC commenced with a prayer led by *Ms. Sarena Valencia* from GRIDS and was followed by an audio-visual presentation for the singing of the national anthem. The welcoming remarks were delivered by *Hon. Rizal L. Basco Jr.*, the Barangay Captain of Tabionan in Gasan and *Mr. Melvin Vitto*, the Municipal Environment and Natural Resources Officer of Buenavista.

The introduction of participants was led by *For. Mikaella C. Morada* (Preparer, GRiDS, Inc.) prior the presentation of the key topics like EIA Process, Project Profile, and Summary of issues and concerns raised from the initially conducted public scoping. A 3-hour open forum was then provided, giving participants the chance to share their concerns and insights for the SEIA study. This approach aimed to ensure transparency, inclusivity, and active community involvement, allowing various perspectives to contribute to the ongoing assessment.

3.2 Presentation of EIA Process

The preparer's Socio Consultant, *Ms. Sarena Grace Valencia*, skillfully presented an overview of the Environmental Impact Assessment (EIA) process. This included a detailed explanation of the activities that the proponent will undertake to secure the Environmental Compliance Certificate (ECC). The presentation covered pertinent laws, issuances, and highlighted the specific objectives of the IEC. For a more in-depth look at the content discussed, a copy of the presentation has been provided as Annex F.

3.3 Presentation of the Project Profile

Engr. Dwelly Jane O. Morales, serving as the representative for the proponent, NIA – MOMARO IMO, provided a thorough presentation that covered various facets of the proposed project. Beyond the project overview, rationale, and site development plan, *Engr. Morales* delved into the intricate details by presenting maps that vividly illustrated the project's location and its development plans. The audience gained valuable insights into the spatial aspects of the initiative. Furthermore, the overall cost and its annual allocation for the proposed project were also presented providing understanding on the financial status and requirements of each proposed activities. Copy of the presentation is attached as Annex G.

3.4 Presentation of the Initial Issues and Concerns raised by the Stakeholders

A summary of issues and concerns raised from the initially conducted Public Scoping was also presented by the preparer, led by *For. Mikaella C. Morada*. This also serves as a review of what has already been raised and documented prior to the activity. To facilitate better understanding, the summary was thoughtfully categorized into key areas, namely land, water, air, and people. This categorization aims to make it easier for all participants to grasp and engage with the information. Copy of presentation is presented as Annex H.

3.5 Open Forum

For. Mikaella C. Morada initiated the open forum by outlining the house rules. She stressed the importance of documenting the scoping process, with the preparer's team encoding participants' issues, concerns, and recommendations. To facilitate this, participants were encouraged to identify themselves by stating their name, barangay or organization, and position before posing questions or sharing concerns.

Throughout the open forum, barangay officials and representatives from municipal offices actively raised a variety of issues, concerns, and recommendations. The questions and corresponding answers from both the proponent and the preparer have been summarized in Table 5 for reference. This approach ensured transparency and accountability in addressing the community's queries and suggestions during the scoping session.

Table 3. Issues/Concerns raised by the Stakeholders from the Municipality of Gasan and Response from the Proponent / Preparer

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Land	**1.** I saw that the project cost is Php 990M, does this include the infrastructures to be built? **2.** Is the compensation on the trees to be cut down for the project included in the project's funding? ***Mr. Edgar A. Sadiwa*** *LDRRMO, Gasan, Marinduque*	**1.** Yes. Original estimated cost for the construction of irrigation facilities is Php 30M with revised estimated and disbursement cost of Php 8,821,122.57. The presented estimated total project cost of Php 990M has been in effect since 2013 up to the present. **2.** The trees to be cut within the dam location are already included in the current Php 30M budget and there is a separate funding to be allocated for compensation. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
Water	After the construction phase, how much volume will the dam have, and how long will it take to fill it? Because there's a concern that those in the residential areas downstream might experience a water shortage while the dam is being filled.	It depends on the water capacity of the river; it fills up quickly during the rainy season, but it may take a bit longer during the dry season. When there is heavy rainfall, the dam easily fills up and spills into the river.

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		There are instances when downstream areas may experience water shortages, especially during the dry season when farmers are utilizing the water. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
	Engr. John Ryan Dela Vega *MEO, Gasan, Marinduque*	
Land	What is the estimated number of trees to be affected by the project? It was mentioned during the presentation of the EIA process that it is still in the 2nd step. However, according to NIA, there is an on-going activity. Please clarify what on-going activity is being referred to.	There is an on-going tree inventory being conducted by DENR and PCA. The results of the tree inventory are still pending request from the DENR. As for the PCA, the completed inventory covers lateral canals A to D. While the DENR has finished the inventory for lateral canals, but the tree inventory within the proposed dam sites is yet to be conducted. Therefore, the current inventory only includes main and lateral canals A to E. The actual count will come from the DENR's report since they are responsible for geotagging and tree inventory. The replacement seedlings will depend on the number of identified trees. It's important to note that the lumber from the trees cut by the DENR will belong to them, and the landowner will not receive it based on their regulations. NIA will compensate the DENR for the felled trees. For the PCA, NIA will pay for the initial inventory, and after obtaining a permit, PCA will conduct another inventory for validation. The compensation is set at Php 860 per tree. It was previously discussed in initial meetings that for compensation, the cut trees will be paid for, and the lumber will be turned over to the landowner. As for other plant damages not covered by DENR and PCA, such as non-classified trees like calamansi

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		and banana, there is a predetermined price for plant damages set by the Municipal Assessor's Office. ***Ms. April Lalaine R. Pelaez*** *Proponent, NIA-MOMARO IMO*
Water	Where will the dam be located, near the spring or far from the spring? ***Hon. Rizal L. Basco Jr.*** *Chairman, Barangay Tabionan*	As presented on the map, the proposed dam site is to be located at the confluence of the Manlawanin and Subling rivers. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
Water	**1.** How can people be sure that the water is clean? What assurance do people have that the water is clean? **2.** Regarding the cleanliness of household water, there is no problem. However, the concern arises due to individuals engaged in shrimp catching. What is their indication that the water is clean and free from contaminants? ***Hon. Rizal L. Basco Jr.*** *Chairman, Barangay Tabionan*	**1.** Part of the baseline study to be conducted by the EIA preparer includes a water quality analysis of the water bodies within and adjacent to the proposed project site through conduct of water sampling activities. This is done to determine if the water is clean and suitable for irrigation and domestic use. Based on the initial assessment, one indicator of its suitability is the existence of the Bagtingon Communal System, which, although currently damaged, was present before. According to past surveys, there have been no complaints from the people regarding water quality being supplied by the said system. **2.** Prior implementation of the environmental management plan to be proposed by NIA and to be approved by EMB, part of it is the implementation of continuous water quality monitoring. This includes the hiring of forest safeguards to oversee stewardship and ensure that there will be no illegal activities immediate the project site that might significantly impact the locals' livelihoods. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
Land	**Suggestion:** Conduct a site visit to Brgy. Tabionan for risk assessment, especially considering the worst-case scenario of dam overflow, given the	Part of the on-going EIA study being conducted by the preparer is to determine the level of risk associated with various hazards

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
	relatively thin soil cover in Brgy. Tabionan that could potentially impact households. ***Hon. Richard M. Zoleta*** *Councilor, Barangay Tabionan*	such as landslides, soil erosion, flooding, and forest fires. We can categorize different levels of risk, including low, moderate, and high risk, as represented in the case of flooding. Areas immediate the proposed project site, identified as direct or indirect impact areas, with moderate to high risk of flooding, will be prioritized for the proposed implementation of vegetative and structural measures. These measures may include planting bamboo or kakauate along streambanks and constructing gabions or dikes. Rest assured that ground validation and necessary coordination with concerned agencies and stakeholders will be made before implementation of any activities. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
Land, Water, People	What will happen if the dam overflows? ***Mr. Edgar A. Sadiwa*** *LDRRMO, Gasan, Marinduque*	The project undergoes regular maintenance, and the dam construction is carried out by experts from the National Irrigation Administration (NIA). ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
People	Is there any compensation for farmers and affected communities to be provided by NIA?	Estimate cost for compensation will be determined during the conduct of detailed survey. However, there is a predetermined price for plant damages set by the Municipal Assessor's Office: Avocado Php 290.00 Banana Php 240.00 Cacao Php 230.00 Calamansi Php 260.00 Camansi Php 260.00 Chico Php 640.00 Coconut Php 390.00 Coffee Php 220.00 Jackfruit Php 830.00 Lanzones Php 460.00 Mabolo Php 330.00 Mango Php 1,650.00 Orange Php 240.00 Rambutan Php 180.00 Santol Php 620.00 Star apple Php 720.00

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		Sineguelas Php 300.00 Bamboo Php 410.00 Tamarind Php 350.00 Buri Php 280.00
	Mr. Edgar A. Sadiwa *LDRRMO, Gasan, Marinduque*	***For. Mikaella C. Morada*** *Preparer, GRIDS*
People	What is the percentage of the residents from Brgy. Tabionan will be involved or able to work during dam construction?	As of now, we cannot provide definite number of individuals or required manpower from each impact barangays during dam construction. But rest assured, hiring of laborers from the locals will be given high priority by the proponent.
	Hon. Richard M. Zoleta *Councilor, Barangay Tabionan*	***For. Mikaella C. Morada*** *Preparer, GRIDS*

Table 4. Issues/Concerns raised by the Stakeholders from the Municipality of Buenavista and Response from the Proponent / Preparer

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Land	**Request**: Right-of-Way Documents ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon*	Request, noted. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
Water	**Correction**: Name of the river is "*Manlawanin*" instead of "*Banlawanin*" ***Hon. Genevieve Valenzuela*** *Councilor, Barangay Bagtingon*	This is noted. This will be corrected on the reports and maps to be submitted. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
People	Is the presented compensation cost per tree already considered as a fixed cost? ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon*	Not yet. This were only a predetermined price for plant damages set by the Municipal Assessor's Office. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
People	Is it true that only the bearing coconut trees will be compensated? What about the newly planted ones? ***Alidia S. Muceu*** *Local Farmer, Barangay Caigangan*	The number of coconut trees that NIA will compensate landowners for will be based on the results of the PCA inventory. We will discuss with them the compensation for the newly planted ones. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
People	Why was the staff house for the project placed in Barangay Masiga? Shouldn't it have been placed in	There is no available land for sale near the project site, so the

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
	Bagtingon instead, as if there are concerns with the dam, Barangay Masiga is quite far for us to go there. ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon*	purchased property is in Barangay Masiga. However, temporary facilities for a bunkhouse will be set up on the project site during dam construction. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
Water, People	In the proposed construction of a dike for flood control, priority should be given to Barangay Bagtingon since that is where the dam will be built. ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon*	Prioritization of the construction of to be proposed structural measures will be determined based on the result of vulnerability risk assessment. Rest assured that ground site validation and necessary coordination with concerned agencies and stakeholders will be made before implementation of any activities. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
People	It is recommended to prioritize the hiring of laborers from the locals of Barangay Bagtingon since they are the most affected. In the ongoing construction of the canal, many have lost their livelihoods, including those engaged in coconut farming, while individuals from other barangays are benefiting and being hired as laborers. ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon* No residents in the Barangay Caigangan are employed in the construction of canal alignment because the contractor brings their own workers. ***Hon. Jonabeth M. Vitto*** *Chairman, Barangay Caigangan*	This is noted. The proponent will coordinate prioritizing hiring of laborers from the locals with their contractor. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
People	Butterfly farming is one of the primary livelihoods of the locals; it should also be one of the aspects to be addressed proactively before they are impacted by the project. ***Hon. Joseph J. Siena*** *Chairman, Barangay Bagtingon*	Part of the EIA Report to be submitted and approved by EMB is the formulation of a Social Development Plan (SDP) which includes measures to compensate for any negative effects on local livelihoods, such as the development of alternative income-generating activities or skills training programs. ***For. Mikaella C. Morada*** *Preparer, GRIDS*

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Land, People	Why did you start the construction of the canal alignment in our barangay without seeking permission from the landowner? When the landowner arrived, all their crops had been uprooted. How can you conduct an inventory now that everything has been uprooted, and how will the compensation cost be determined? ***Alidia S. Muceu*** *Local Farmer, Barangay Caigangan* **Suggestion:** Before you commence construction, you should conduct an inventory of the crops/trees you will be excavating and communicate with the landowners. The proposed project won't be able to help them if the farmers you aim to help no longer have any crops to harvest. ***Melvin Vitto*** *MENRO/Acting MAO, Buenavista, Marinduque*	Noted. We will discuss this with the team assigned to the project. Regarding the compensation cost for the crops, we will coordinate and consult with the Department of Agriculture (DA) first. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
Land, People	During the last MAFC meeting, an issue concerning Kuya Nicanor emerged. He's a farmer who produces a significant number of high value crops, but his crops were affected by the construction of the canal alignment. The impact happened without prior notice and compensation. ***Maria Eloisa L. Apostol*** *MAO Representative, Buenavista, Marinduque* What assurance do we have that you will communicate next time? Because this is the initial step that you missed – you didn't reach out, and you haven't paid yet. ***Melvin Vitto*** *MENRO/Acting MAO, Buenavista, Marinduque* I requested a meeting with NIA to find out if they have already talked to the affected farmers and if they have agreed on the proposed compensation. Our top concern is that, before they start, the crops that will be damaged should already be compensated. Construction has already begun without informing the landowners or coordinating with the barangays before uprooting the crops. So now, there won't be any crops to count because they have already been uprooted. ***Hon. Jonabeth M. Vitto***	We will issue a notice to our contractor to prevent such incidents where they don't seek permission. ***Engr. Dwelly Jane O. Morales***

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
	Chairman, Barangay Caigangan	*Proponent, NIA-MOMARO IMO*
People	Another concern raised by our council member is that their house is being buried under soil due to the ongoing construction, and only the roof is visible. Also, the irrigation at the far end towards Bagtingon; there is no access. Only along the line canal exists, but the path that the locals actually take is nonexistent. It would be better if you could coordinate with the barangay about this. ***Hon. Jonabeth M. Vitto*** *Chairman, Barangay Caigangan*	This is noted. We'll talk with our contractor regarding this. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
People	For the preparers (GRIDS), why did you hire enumerators from our barangay? How can you ensure the accuracy of the respondents' answers and truly understand the community's real problems if you just hired enumerators? ***Hon. Jonabeth M. Vitto*** *Chairman, Barangay Caigangan* Asking questions is crucial; it can mislead who the actual doer is. The suggestion is to orient the one asking the questions. ***Mr. Melvin Vitto*** *MENRO/Acting MAO, Buenavista, Marinduque*	Admittedly, we hired additional enumerators for barangays with a large target number of respondents due to the limited team members at that time. The team also made sure that the hired enumerators were well-oriented with the proposed project. We discussed in detail the content of the questionnaires and how to explain them to the respondents. It's also true that we personally conducted a house-to-house surveys in barangays manageable by the team. We are willing to revisit those barangays where we hired an enumerator and personally conduct the survey with the project team members to ensure the accuracy of the households' responses. Expect a follow-up call from us to coordinate the scheduling of the activity. ***For. Mikaella C. Morada*** *Preparer, GRIDS*
People	**Suggestion:** Conduct consultation meetings per barangay because not all members of the barangay officials are present here to raise issues / concerns. ***Hon. Jonabeth M. Vitto*** *Chairman, Barangay Caigangan*	This is noted. ***Engr. Dwelly Jane O. Morales*** *Proponent, NIA-MOMARO IMO*
People	Create a plan for farmers so that when we are asked in the regional and provincial meetings, we have something to respond with.	Yes. In the management plan to be formulated within the EIA Report to be submitted to the EMB, local

Envi Module / Aspect	CONCERNS / QUESTION & SECTOR REPRESENTATIVE WHO RAISED THE CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
		farmers will be one of the top priorities, particularly in the Social Development Plan (SDP), which will also be presented to you later. We will have a public hearing to present the study results and the corresponding proposed activities to address the identified issues/concerns before the EMB approves the issuance of the Environmental Compliance Certificate (ECC) with the prosed BSRIP.
	Ms. Maria Eloisa L. Apostol *MAO Representative, Buenavista, Marinduque*	***For. Mikaella C. Morada*** *Preparer, GRIDS*

Table 5. Summary of Issues/Concerns Raised per Component

ISSUES / CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
LAND	
Clarification on project cost and inclusion of budget for construction of irrigation facilities and compensation for the trees to be cut down on the presented estimated value.	Construction of irrigation facilities are already included in the estimated project cost of PHP 990M presented; compensation to be paid for has a separate budget allocation.
Clarification on the estimated number of trees to be affected by the project and ongoing activities.	Ongoing tree inventory by DENR and PCA; Result of inventory is of pending request with DENR.
Request for right-of-way documents.	To be provided by the proponent.
WATER	
Assurance on clean water quality	Water quality assured through conduct of baseline study and implementation of continuous water quality monitoring.
Suggestion to prioritize Barangay Bagtingon in the construction of flood controls.	Prioritization based on vulnerability risk assessment result; Coordination assured.
Duration and impact of dam filling on downstream water supply	Filling time varies based on river capacity; Recognized downstream water shortages during dry season
Suggestion for a site visit to assess risks, especially in case of dam overflow.	Ongoing risk assessment; Prioritize measures based on risk levels; Coordination and validation before implementation of any activities
Correction of the river name from "Banlawanin" to "Manlawanin."	To be rectified on the reports by the proponent and preparer.
PEOPLE	
Inquiry about whether the presented compensation cost per tree a fixed cost is.	Not yet fixed; Only predetermined price for plant damages by the Municipal Assessors Office.
Compensation for newly planted coconut trees.	Compensation to be based on the result of PCA inventory; To be discussed with PCA the compensation for newly planted trees.

ISSUES / CONCERN	RESPONSE FROM PROPONENT / EIA PREPARER
Questioning the location of the staff house in Barangay Masiga, considering the potential concerns with the dam. The distance to Barangay Masiga poses logistical challenges for addressing dam-related issues.	The staff house is in Barangay Masiga because there was no land available for sale near the project site; Temporary bunkhouse facilities will be set up on the project site during dam construction to provide on-site accommodations for the project team.
Suggestion to prioritize hiring local laborers in Barangay Bagtingon	Coordination with contractor to prioritize local hiring.
Observation of no local residents employed in the on-going canal alignment construction.	
Proactive addressing of butterfly farming impact on locals.	Social Development Plan (SDP) to mitigate livelihood impacts to be included in EIA Report to be submitted and approved by EMB.
Construction started without landowner permission, causing crop damage.	Discussions and coordination with DA for crop compensation; Notice issuance to contractor to prevent future incidents.
Concern on accuracy of survey results due to hiring of enumerators from the local barangays during the previously conducted perception survey.	Acknowledged limited team members; Commitment to revisit barangays to repeat the survey.
Suggestion to conduct consultation meetings per barangay.	To be discussed and coordinated by the proponent.
Suggestion to create a plan for local farmers'	Affirmed; Commitment to prioritize farmers in the Social Development Plan to be incorporated in the EIA Report.

3.6 Summary and Closing

For. Mikaella C. Morada emphasized the commitment to obtaining all necessary permits and ensuring thorough coordination with relevant agencies before commencing any project activities. The preparer and proponent will promptly submit all requested data and reports to concerned parties, serving as a comprehensive reference for the activities leading to the acquisition of the Environmental Compliance Certificate (ECC) for the proposed project.

Moreover, the result of the community consultation will be carefully documented and submitted to the EMB – MIMAROPRA Regional Office for the endorsement of the technical scoping checklist. Once the checklist has been received, the SEIA team of consultants from GRIDS will commence on-site data gathering.

Concluding the session, *Ms. Sarena Valencia*, representing GrIDS, reiterated the importance of open communication to address any concerns or issues that may arise. The facilitator expressed gratitude to all participants and extended sincere thanks to the Municipality of Gasan and Buenavista for their support and assistance in preparing for the Project Orientation.

Photo documentation of the event is presented in Annex I.

4 ANNEXES

A – Receiving copies of invitation letters sent out to the stakeholders from the Municipality of Gasan

B – Receiving copies of invitation letters sent out to the stakeholders from the Municipality of Buenavista

C – Attendance Sheet

D – IEC Material – Brochure

E – Program of Activities during the Project Orientation

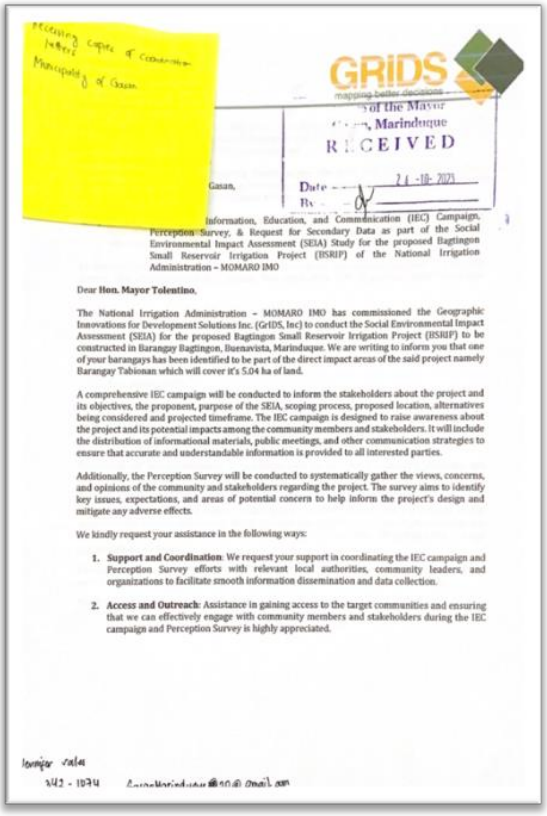
F – Powerpoint Presentation - EIA Process

G – Powerpoint Presentation – Project Description

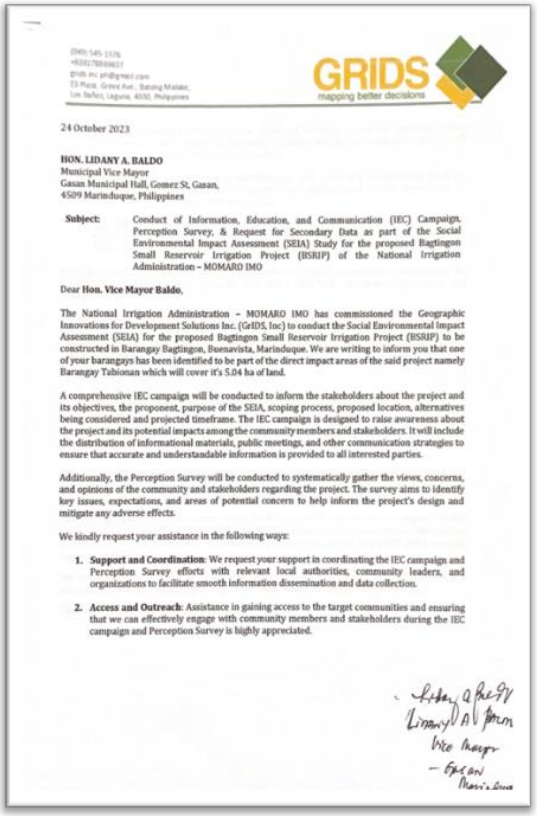
H – Powerpoint Presentation – Initial Issues and Concerns

I – Photo Documentation

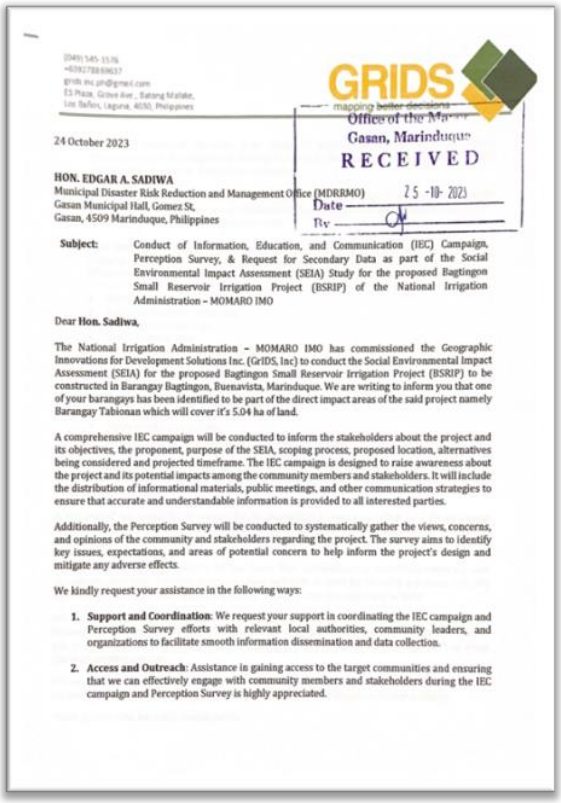
Annex A. Receiving copies of invitation letters sent out to the stakeholders from the Municipality of Gasan



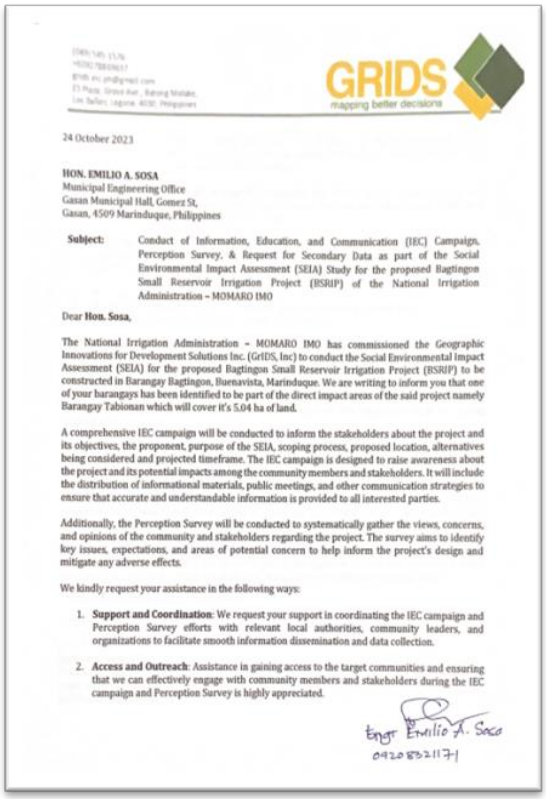
Office of the Mayor (Gasan)



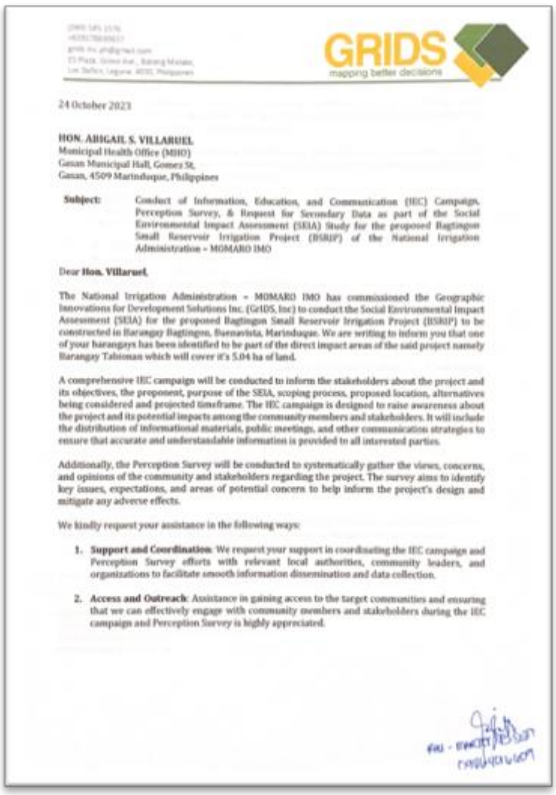
Office of the Municipal Vice Mayor (Gasan)



Municipal Disaster Risk Reduction and Management Office (MAO)



Municipal Engineering Office (MEO)



24 October 2023

HON. ABIGAIL S. VILLARUEL
Municipal Health Office (MHO)
Gasan Municipal Hall, Gomez St,
Gasan, 4509 Marinduque, Philippines

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Villaruel**,

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that one of your barangays has been identified to be part of the direct impact areas of the said project namely Barangay Tabionan which will cover it's 5.04 ha of land.

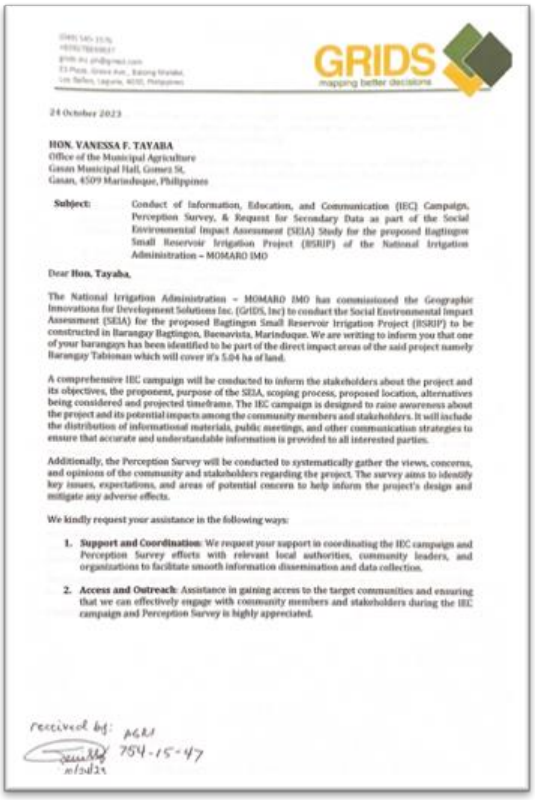
A comprehensive IEC campaign will be conducted to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered and projected timeframe. The IEC campaign is designed to raise awareness about the project and its potential impacts among the community members and stakeholders. It will include the distribution of informational materials, public meetings, and other communication strategies to ensure that accurate and understandable information is provided to all interested parties.

Additionally, the Perception Survey will be conducted to systematically gather the views, concerns, and opinions of the community and stakeholders regarding the project. The survey aims to identify key issues, expectations, and areas of potential concern to help inform the project's design and mitigate any adverse effects.

We kindly request your assistance in the following ways:

1. **Support and Coordination**: We request your support in coordinating the IEC campaign and Perception Survey efforts with relevant local authorities, community leaders, and organizations to facilitate smooth information dissemination and data collection.
2. **Access and Outreach**: Assistance in gaining access to the target communities and ensuring that we can effectively engage with community members and stakeholders during the IEC campaign and Perception Survey is highly appreciated.

Municipal Health Office (MHO)



24 October 2023

HON. VANESSA F. TAYABA
Office of the Municipal Agriculture
Gasan Municipal Hall, Gomez St,
Gasan, 4509 Marinduque, Philippines

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Tayaba**,

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that one of your barangays has been identified to be part of the direct impact areas of the said project namely Barangay Tabionan which will cover it's 5.04 ha of land.

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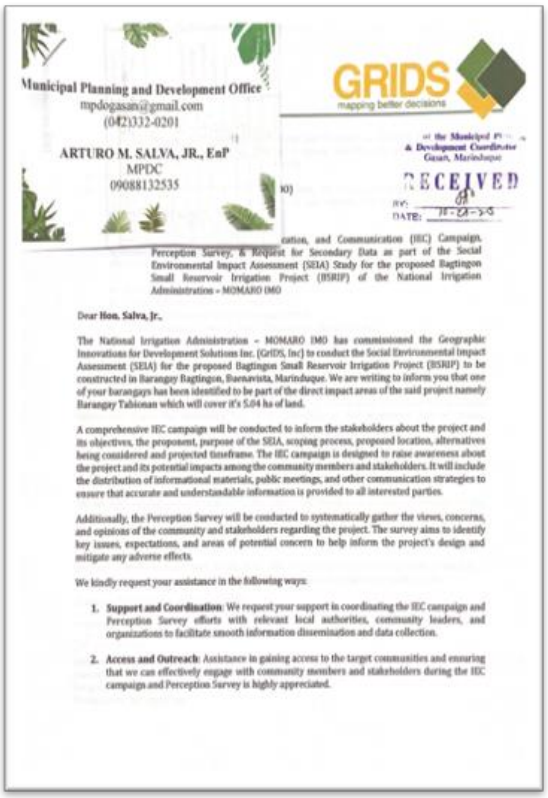
received by: AGRI 754-15-47

Municipal Agricultures Office (MAO)



Municipal Planning and Development Office
mpdogasan@gmail.com
(042)332-0201

ARTURO M. SALVA, JR., EnP
MPDC
09088132535

RECEIVED

ation, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Salva, Jr.**,

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that one of your barangays has been identified to be part of the direct impact areas of the said project namely Barangay Tabionan which will cover it's 5.04 ha of land.

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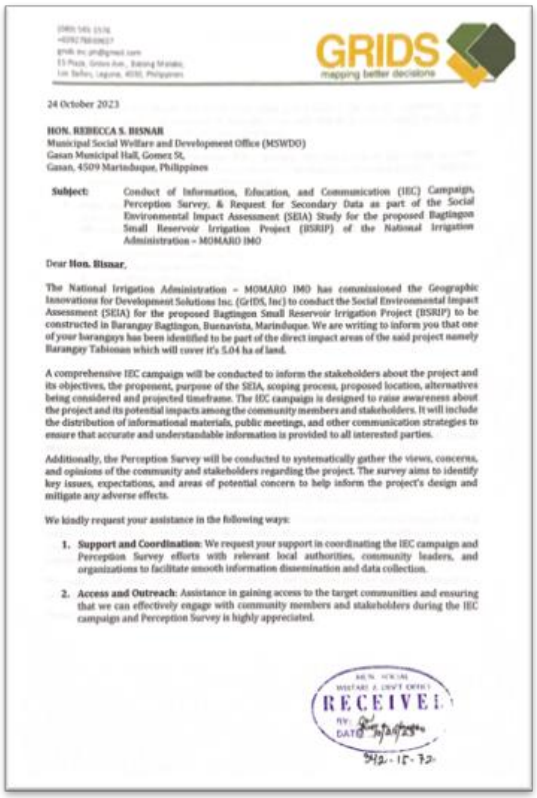
Municipal Planning & Development Office (MPDO)



24 October 2023

HON. REBECCA S. BISNAR
Municipal Social Welfare and Development Office (MSWDO)
Gasan Municipal Hall, Gomez St,
Gasan, 4509 Marinduque, Philippines

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Bisnar**,

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that one of your barangays has been identified to be part of the direct impact areas of the said project namely Barangay Tabionan which will cover it's 5.04 ha of land.

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Additionally, the Perception Survey will be conducted to systematically gather the views, concerns, and opinions of the community and stakeholders regarding the project. The survey aims to identify key issues, expectations, and areas of potential concern to help inform the project's design and mitigate any adverse effects.

We kindly request your assistance in the following ways:

1. **Support and Coordination**: We request your support in coordinating the IEC campaign and Perception Survey efforts with relevant local authorities, community leaders, and organizations to facilitate smooth information dissemination and data collection.
2. **Access and Outreach**: Assistance in gaining access to the target communities and ensuring that we can effectively engage with community members and stakeholders during the IEC campaign and Perception Survey is highly appreciated.

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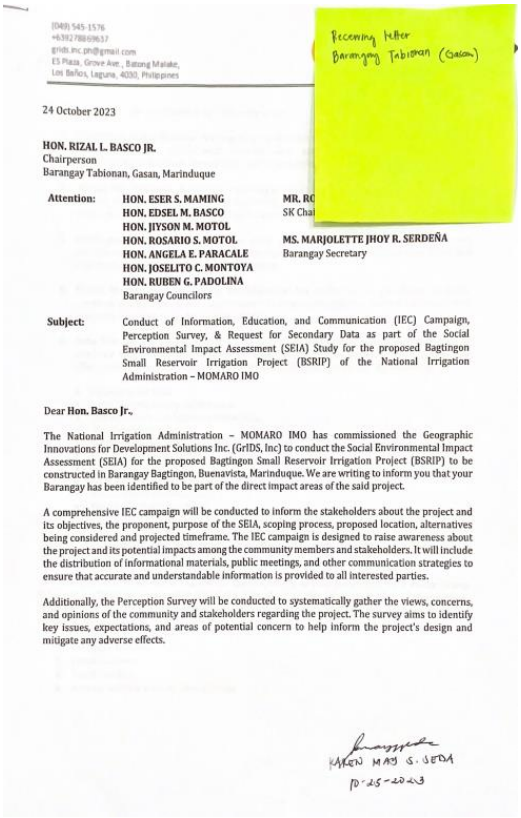
Municipal Social Welfare & Development Office (MSWDO)



(049) 545-1576
+6392788696637
grids.inc.ph@gmail.com
ES Plaza, Grove Ave., Batong Malake,
Los Baños, Laguna, 4030, Philippines

Receiving letter
Barangay Tabionan (Gasan)

24 October 2023

HON. RIZAL L. BASCO JR.
Chairperson
Barangay Tabionan, Gasan, Marinduque

Attention: **HON. ESER S. MAMING**
HON. EDSEL M. BASCO
HON. JIYSON M. MOTOL
HON. ROSARIO S. MOTOL
HON. ANGELA E. PARACALE
HON. JOSELITO C. MONTOYA
HON. RUBEN G. PADOLINA
Barangay Councilors

MR. RO
SK Chai

MS. MARJOLETTE JHOY R. SERDEÑA
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Basco Jr.,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

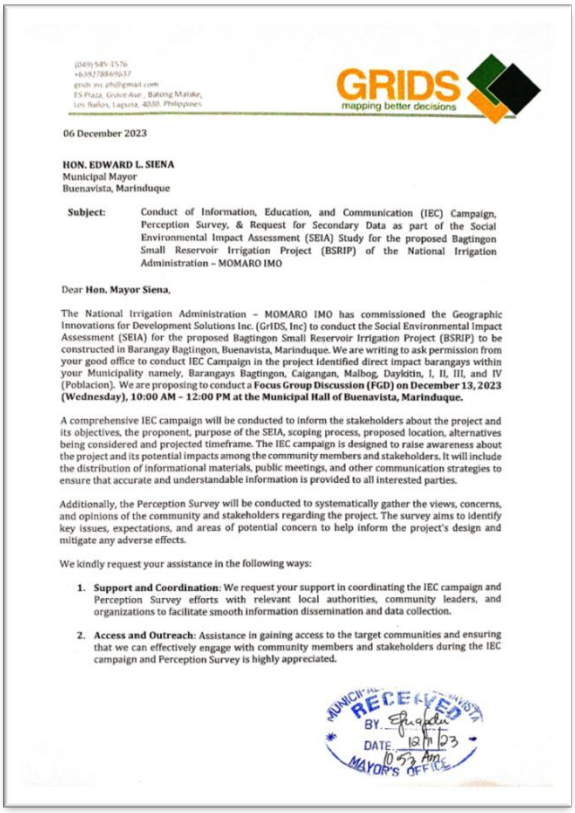
A comprehensive IEC campaign will be conducted to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered and projected timeframe. The IEC campaign is designed to raise awareness about the project and its potential impacts among the community members and stakeholders. It will include the distribution of informational materials, public meetings, and other communication strategies to ensure that accurate and understandable information is provided to all interested parties.

Additionally, the Perception Survey will be conducted to systematically gather the views, concerns, and opinions of the community and stakeholders regarding the project. The survey aims to identify key issues, expectations, and areas of potential concern to help inform the project's design and mitigate any adverse effects.

KAREN MAY S. SEDA
10-25-2023

Barangay Tabionan, Gasan

Annex B. Receiving copies of invitation letters sent out to the stakeholders from the Municipality of Buenavista



06 December 2023

HON. EDWARD L. SIENA
Municipal Mayor
Buenavista, Marinduque

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Mayor Siena,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to ask permission from your good office to conduct IEC Campaign in the project identified direct impact barangays within your Municipality namely, Barangays Bagtingon, Caigangan, Malbog, Dayikitin, I, II, III, and IV (Poblacion). We are proposing to conduct a **Focus Group Discussion (FGD) on December 13, 2023 (Wednesday), 10:00 AM – 12:00 PM at the Municipal Hall of Buenavista, Marinduque.**

A comprehensive IEC campaign will be conducted to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered and projected timeframe. The IEC campaign is designed to raise awareness about the project and its potential impacts among the community members and stakeholders. It will include the distribution of informational materials, public meetings, and other communication strategies to ensure that accurate and understandable information is provided to all interested parties.

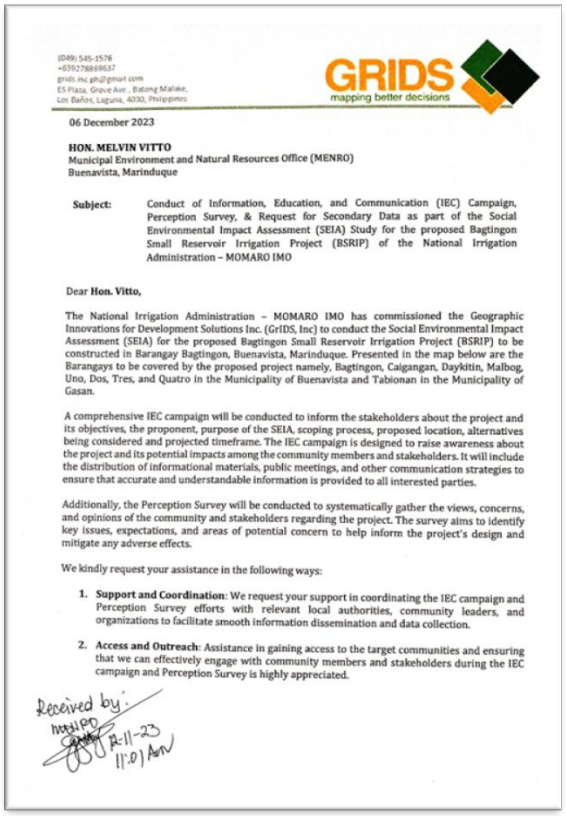
Additionally, the Perception Survey will be conducted to systematically gather the views, concerns, and opinions of the community and stakeholders regarding the project. The survey aims to identify key issues, expectations, and areas of potential concern to help inform the project's design and mitigate any adverse effects.

We kindly request your assistance in the following ways:

1. **Support and Coordination**: We request your support in coordinating the IEC campaign and Perception Survey efforts with relevant local authorities, community leaders, and organizations to facilitate smooth information dissemination and data collection.
2. **Access and Outreach**: Assistance in gaining access to the target communities and ensuring that we can effectively engage with community members and stakeholders during the IEC campaign and Perception Survey is highly appreciated.

RECEIVED BY: DATE: 12/11/23 10:53 AM MAYOR'S OFFICE

Office of the Mayor (Buenavista)



06 December 2023

HON. MELVIN VITTO
Municipal Environment and Natural Resources Office (MENRO)
Buenavista, Marinduque

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Vitto,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. Presented in the map below are the Barangays to be covered by the proposed project namely, Bagtingon, Caigangan, Dayikitin, Malbog, Uno, Dos, Tres, and Quatro in the Municipality of Buenavista and Tabionan in the Municipality of Gasan.

A comprehensive IEC campaign will be conducted to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered and projected timeframe. The IEC campaign is designed to raise awareness about the project and its potential impacts among the community members and stakeholders. It will include the distribution of informational materials, public meetings, and other communication strategies to ensure that accurate and understandable information is provided to all interested parties.

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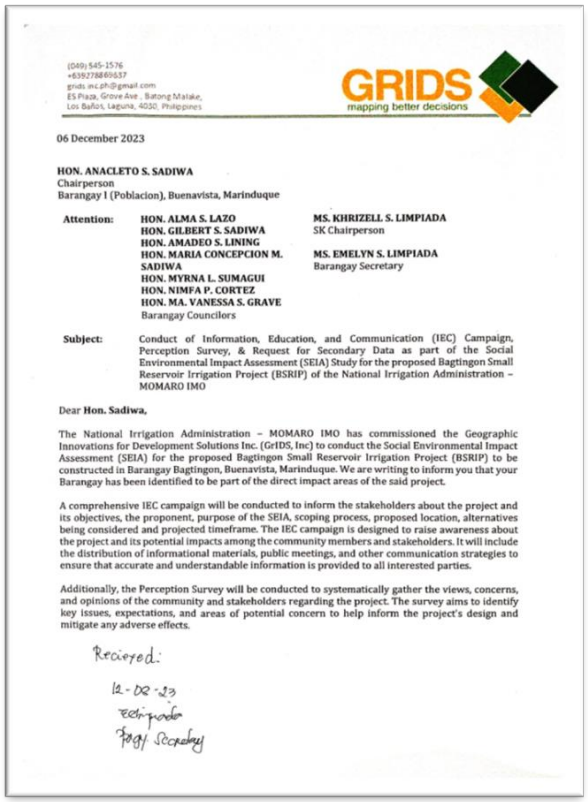
2. **Access and Outreach**: Assistance in gaining access to the target communities and ensuring that we can effectively engage with community members and stakeholders during the IEC campaign and Perception Survey is highly appreciated.

Received by: 12-11-23 11:01 AM

Municipal Environment & Natural Resources Office (MENRO)



06 December 2023

HON. ANACLETO S. SADIWA
Chairperson
Barangay I (Poblacion), Buenavista, Marinduque

Attention:
HON. ALMA S. LAZO
HON. GILBERT S. SADIWA
HON. AMADEO S. LINING
HON. MARIA CONCEPCION M. SADIWA
HON. MYRNA L. SUMAGUI
HON. NIMFA P. CORTEZ
HON. MA. VANESSA S. GRAVE
Barangay Councilors

MS. KHRIZELL S. LIMPIADA
SK Chairperson

MS. EMELYN S. LIMPIADA
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Sadiwa,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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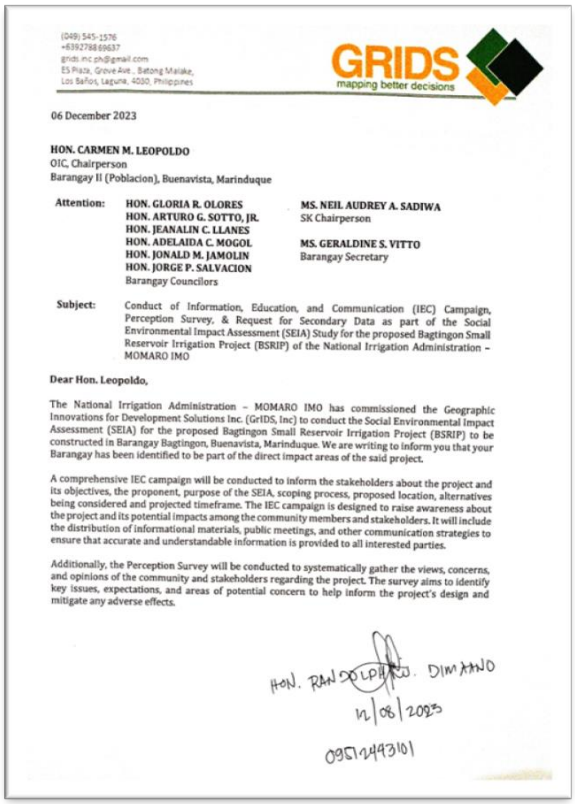
Recieved:
12-02-23
Brgy. Secretary

Barangay Uno, Buenavista



06 December 2023

HON. CARMEN M. LEOPOLDO
OIC, Chairperson
Barangay II (Poblacion), Buenavista, Marinduque

Attention:
HON. GLORIA R. OLORES
HON. ARTURO G. SOTTO, JR.
HON. JEANALIN C. LLANES
HON. ADELAIDA C. MOGOL
HON. JONALD M. JAMOLIN
HON. JORGE P. SALVACION
Barangay Councilors

MS. NEIL AUDREY A. SADIWA
SK Chairperson

MS. GERALDINE S. VITTO
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Leopoldo,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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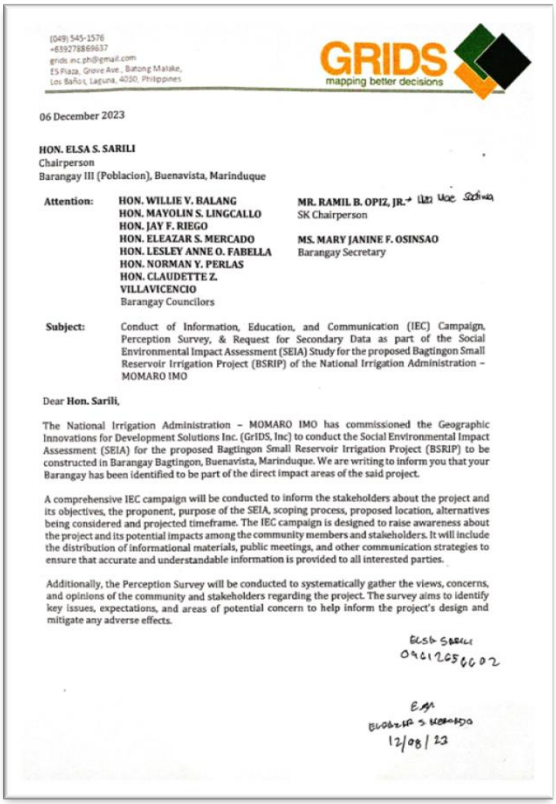
HON. RAN[illegible]LPH[illegible] DIMANO
12/08/2023
09512493101

Barangay Dos, Buenavista



(049) 545-1576
+639278869637
grids.inc.ph@gmail.com
ES Plaza, Grove Ave., Batong Malake,
Los Baños, Laguna, 4030, Philippines

06 December 2023

HON. ELSA S. SARILI
Chairperson
Barangay III (Poblacion), Buenavista, Marinduque

Attention: **HON. WILLIE V. BALANG**
HON. MAYOLIN S. LINGCALLO
HON. JAY F. RIEGO
HON. ELEAZAR S. MERCADO
HON. LESLEY ANNE O. FABELLA
HON. NORMAN Y. PERLAS
HON. CLAUDETTE Z. VILLAVICENCIO
Barangay Councilors

MR. RAMIL B. OPIZ, JR.
SK Chairperson

MS. MARY JANINE F. OSINSAO
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Sarili,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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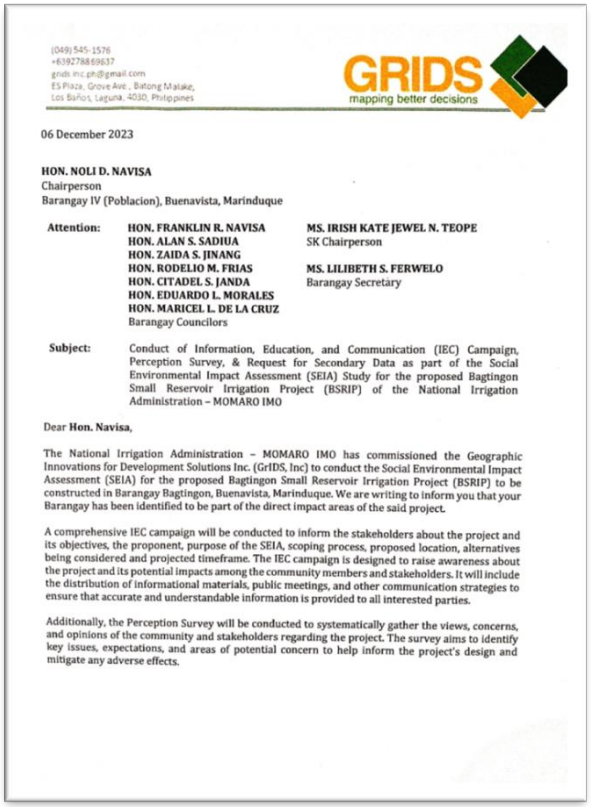
09612566602

12/08/23

Barangay Tres, Buenavista



(049) 545-1576
+639278869637
grids.inc.ph@gmail.com
ES Plaza, Grove Ave., Batong Malake,
Los Baños, Laguna, 4030, Philippines

06 December 2023

HON. NOLI D. NAVISA
Chairperson
Barangay IV (Poblacion), Buenavista, Marinduque

Attention: **HON. FRANKLIN R. NAVISA**
HON. ALAN S. SADIUA
HON. ZAIDA S. JINANG
HON. RODELIO M. FRIAS
HON. CITADEL S. JANDA
HON. EDUARDO L. MORALES
HON. MARICEL L. DE LA CRUZ
Barangay Councilors

MS. IRISH KATE JEWEL N. TEOPE
SK Chairperson

MS. LILIBETH S. FERWELO
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Navisa,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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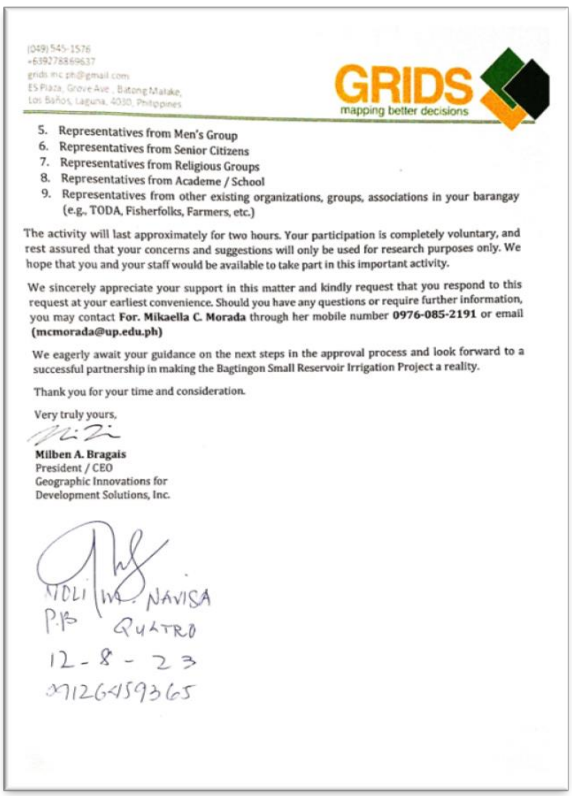
Barangay Quatro, Buenavista



(049) 545-1576
+639278869637
grids.inc.ph@gmail.com
ES Plaza, Grove Ave., Batong Malake,
Los Baños, Laguna, 4030, Philippines

5. Representatives from Men's Group
6. Representatives from Senior Citizens
7. Representatives from Religious Groups
8. Representatives from Academe / School
9. Representatives from other existing organizations, groups, associations in your barangay (e.g., TODA, Fisherfolks, Farmers, etc.)

The activity will last approximately for two hours. Your participation is completely voluntary, and rest assured that your concerns and suggestions will only be used for research purposes only. We hope that you and your staff would be available to take part in this important activity.

We sincerely appreciate your support in this matter and kindly request that you respond to this request at your earliest convenience. Should you have any questions or require further information, you may contact **For. Mikaella C. Morada** through her mobile number **0976-085-2191** or email **(mcmorada@up.edu.ph)**

We eagerly await your guidance on the next steps in the approval process and look forward to a successful partnership in making the Bagtingon Small Reservoir Irrigation Project a reality.

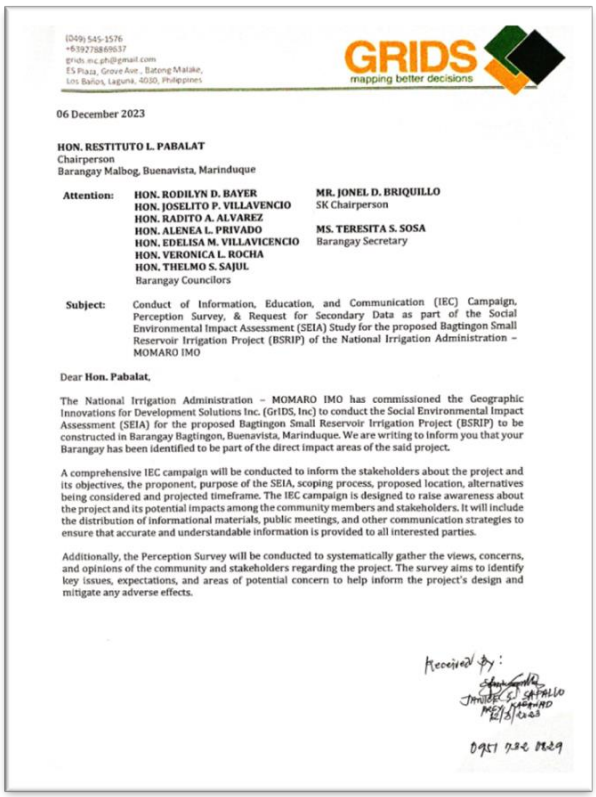
Thank you for your time and consideration.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for
Development Solutions, Inc.

NOLI M. NAVISA
P.B QUATRO
12-8-23
09126459365

Barangay Quatro, Buenavista
(Backpage with signed receipt)



(049) 545-1576
+639278869637
grids.inc.ph@gmail.com
ES Plaza, Grove Ave., Batong Malake,
Los Baños, Laguna, 4030, Philippines

06 December 2023

HON. RESTITUTO L. PABALAT
Chairperson
Barangay Malbog, Buenavista, Marinduque

Attention: **HON. RODILYN D. BAYER**
HON. JOSELITO P. VILLAVENCIO
HON. RADITO A. ALVAREZ
HON. ALENEA L. PRIVADO
HON. EDELISA M. VILLAVICENCIO
HON. VERONICA L. ROCHA
HON. THELMO S. SAJUL
Barangay Councilors

MR. JONEL D. BRIQUILLO
SK Chairperson

MS. TERESITA S. SOSA
Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Pabalat.**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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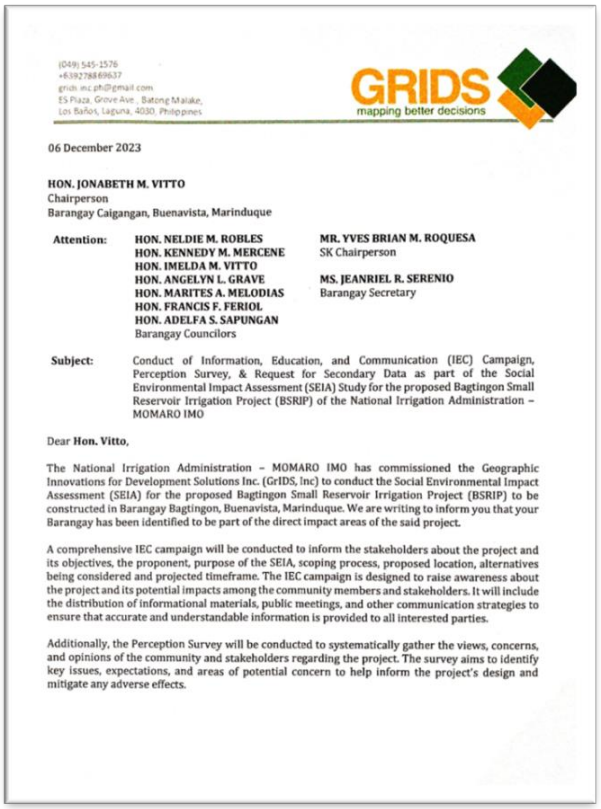
Received by:
JENNIFER S. SAPALLO
12/8/2023

0951 732 1829

Barangay Malbog, Buenavista



06 December 2023

HON. JONABETH M. VITTO
Chairperson
Barangay Caigangan, Buenavista, Marinduque

Attention: **HON. NELDIE M. ROBLES**, **HON. KENNEDY M. MERCENE**, **HON. IMELDA M. VITTO**, **HON. ANGELYN L. GRAVE**, **HON. MARITES A. MELODIAS**, **HON. FRANCIS F. FERIOL**, **HON. ADELFA S. SAPUNGAN** Barangay Councilors; **MR. YVES BRIAN M. ROQUESA** SK Chairperson; **MS. JEANRIEL R. SERENIO** Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Vitto,**

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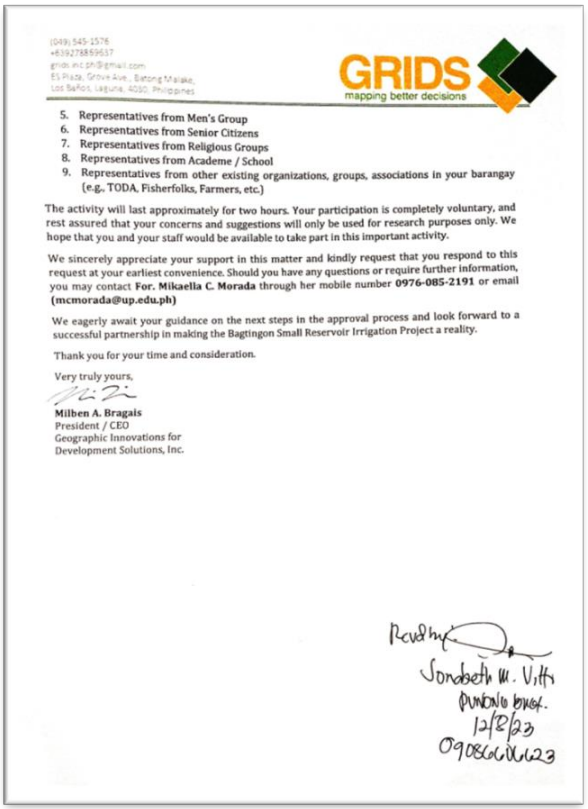
Barangay Caigangan, Buenavista



5. Representatives from Men's Group
6. Representatives from Senior Citizens
7. Representatives from Religious Groups
8. Representatives from Academe / School
9. Representatives from other existing organizations, groups, associations in your barangay (e.g., TODA, Fisherfolks, Farmers, etc.)

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We sincerely appreciate your support in this matter and kindly request that you respond to this request at your earliest convenience. Should you have any questions or require further information, you may contact **For. Mikaella C. Morada** through her mobile number **0976-085-2191** or email **(mcmorada@up.edu.ph)**

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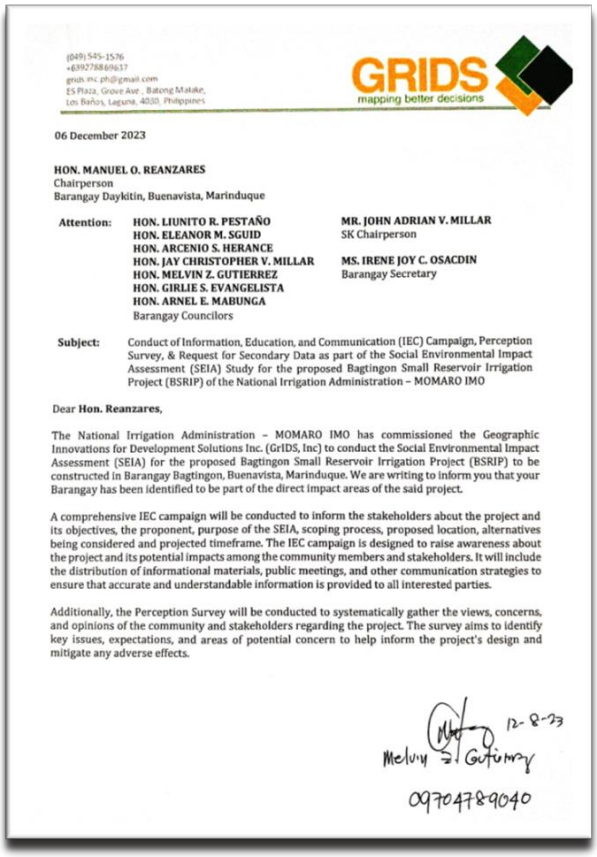
Thank you for your time and consideration.

Very truly yours,

Milben A. Bragais
President / CEO
Geographic Innovations for
Development Solutions, Inc.

Received by:
Jonabeth M. Vitto
Punong Brgy.
12/8/23
09086611623

Barangay Caigangan, Buenavista
(Backpage with signed receipt)



06 December 2023

HON. MANUEL O. REANZARES
Chairperson
Barangay Daykitin, Buenavista, Marinduque

Attention: **HON. LIUNITO R. PESTAÑO**, **HON. ELEANOR M. SGUID**, **HON. ARCENIO S. HERANCE**, **HON. JAY CHRISTOPHER V. MILLAR**, **HON. MELVIN Z. GUTIERREZ**, **HON. GIRLIE S. EVANGELISTA**, **HON. ARNEL E. MABUNGA** Barangay Councilors; **MR. JOHN ADRIAN V. MILLAR** SK Chairperson; **MS. IRENE JOY C. OSACDIN** Barangay Secretary

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Hon. Reanzares,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. We are writing to inform you that your Barangay has been identified to be part of the direct impact areas of the said project.

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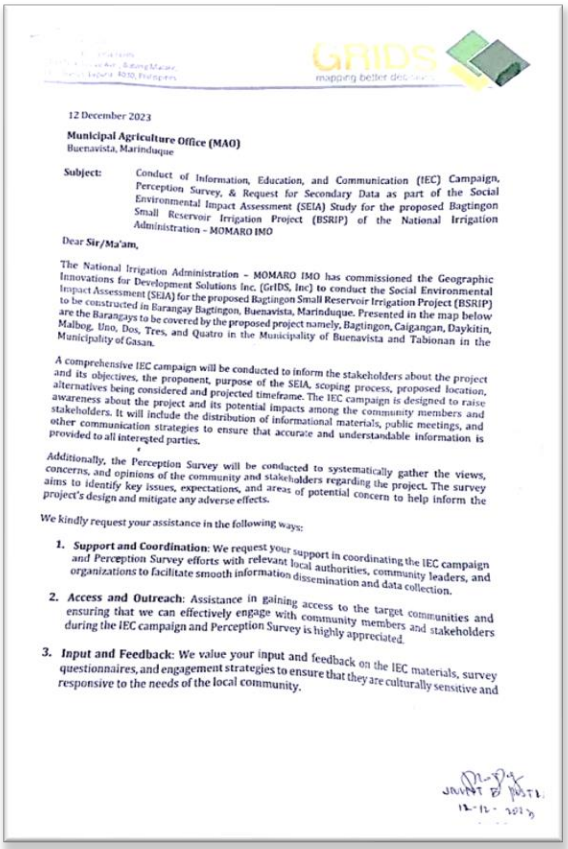
12-8-23
Melvin Z. Gutierrez
09704789040

Barangay Daykitin, Buenavista



12 December 2023

Municipal Agriculture Office (MAO)
Buenavista, Marinduque

Subject: Conduct of Information, Education, and Communication (IEC) Campaign, Perception Survey, & Request for Secondary Data as part of the Social Environmental Impact Assessment (SEIA) Study for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) of the National Irrigation Administration – MOMARO IMO

Dear **Sir/Ma'am,**

The National Irrigation Administration – MOMARO IMO has commissioned the Geographic Innovations for Development Solutions Inc. (GrIDS, Inc) to conduct the Social Environmental Impact Assessment (SEIA) for the proposed Bagtingon Small Reservoir Irrigation Project (BSRIP) to be constructed in Barangay Bagtingon, Buenavista, Marinduque. Presented in the map below are the Barangays to be covered by the proposed project namely, Bagtingon, Caigangan, Daykitin, Malbog, Uno, Dos, Tres, and Quatro in the Municipality of Buenavista and Tabionan in the Municipality of Gasan.

A comprehensive IEC campaign will be conducted to inform the stakeholders about the project and its objectives, the proponent, purpose of the SEIA, scoping process, proposed location, alternatives being considered and projected timeframe. The IEC campaign is designed to raise awareness about the project and its potential impacts among the community members and stakeholders. It will include the distribution of informational materials, public meetings, and other communication strategies to ensure that accurate and understandable information is provided to all interested parties.

Additionally, the Perception Survey will be conducted to systematically gather the views, concerns, and opinions of the community and stakeholders regarding the project. The survey aims to identify key issues, expectations, and areas of potential concern to help inform the project's design and mitigate any adverse effects.

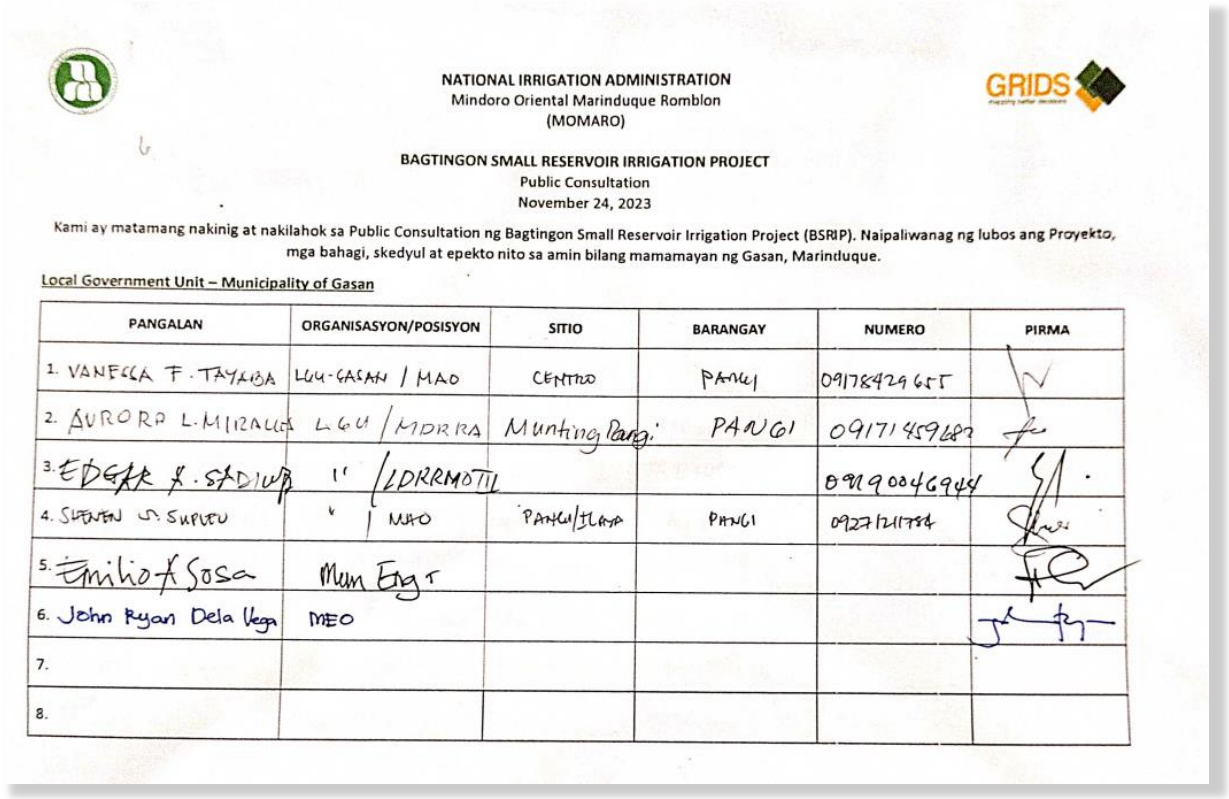
We kindly request your assistance in the following ways:

1. **Support and Coordination**: We request your support in coordinating the IEC campaign and Perception Survey efforts with relevant local authorities, community leaders, and organizations to facilitate smooth information dissemination and data collection.
2. **Access and Outreach**: Assistance in gaining access to the target communities and ensuring that we can effectively engage with community members and stakeholders during the IEC campaign and Perception Survey is highly appreciated.
3. **Input and Feedback**: We value your input and feedback on the IEC materials, survey questionnaires, and engagement strategies to ensure that they are culturally sensitive and responsive to the needs of the local community.

Municipal Agriculture Office (MAO)

Annex C. Attendance Sheet

LGU – Gasan



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon
(MOMARO)

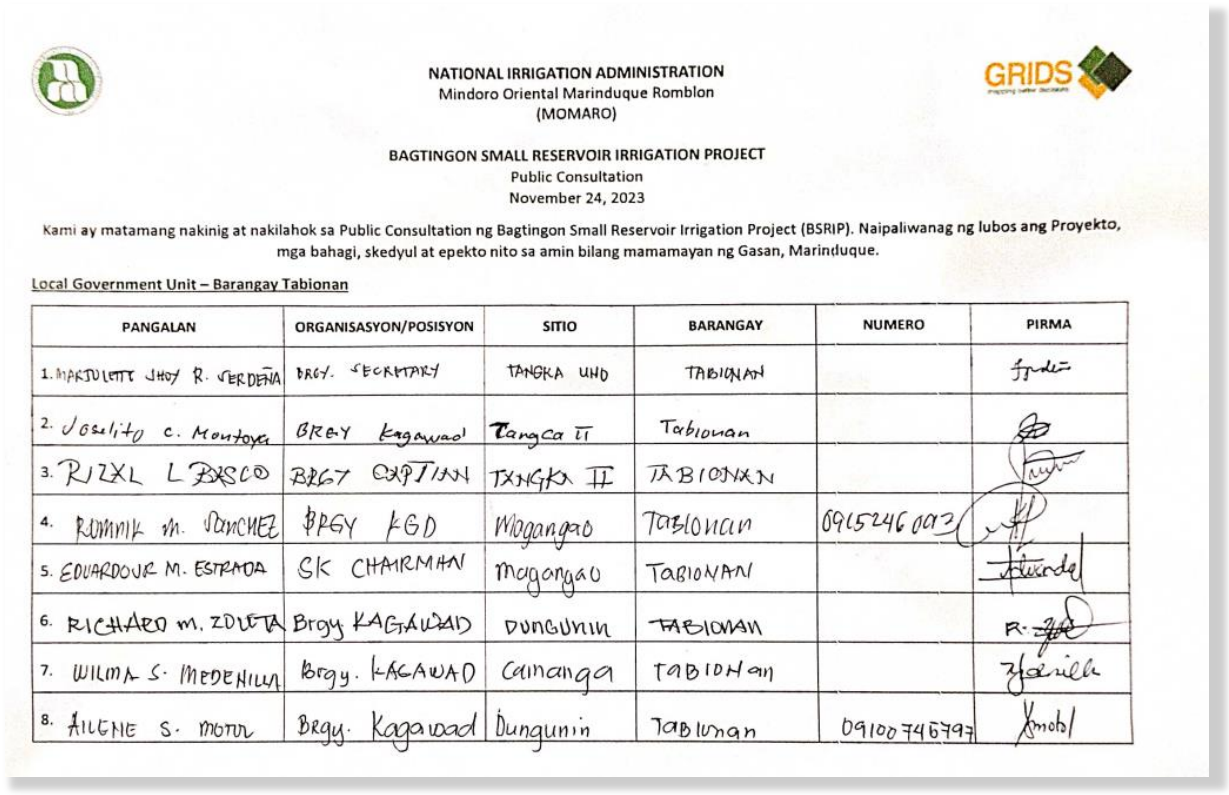
BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
November 24, 2023

Kami ay matamang nakinig at nakilahok sa Public Consultation ng Bagtingon Small Reservoir Irrigation Project (BSRIP). Naipaliwanag ng lubos ang Proyekto, mga bahagi, skedyul at epekto nito sa amin bilang mamamayan ng Gasan, Marinduque.

Local Government Unit – Municipality of Gasan

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. VANESSA F. TAYAMA	LGU-GASAN / MAO	CENTRO	PANGI	09178429655	
2. AURORA L. MIRALLES	LGU / MDRRMO	Munting Parg.	PANGI	09171459687	
3. EDGAR S. STDIUB	" / LDRRMOTII			09190046944	
4. STEVEN S. SUPLEO	" / MAO	PANGI/ILAYA	PANGI	09271211784	
5. Emilio A Sosa	Mun Engr				
6. John Ryan Dela Vega	MEO				
7.					
8.					

LGU – Baragay Tabionan, Gasan



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon
(MOMARO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
November 24, 2023

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Local Government Unit – Barangay Tabionan

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. MARIJULETTE JHOY R. VERDEÑA	BRGY. SECRETARY	TANGKA UNO	TABIONAN		
2. Joselito C. Montoya	BRGY Kagawad	Tangca II	Tabionan		
3. RIZXL L BASCO	BRGY OFFICIAL	TANGKA II	TABIONAN		
4. RONNIE M. SANCHEZ	BRGY KGD	Magangao	TABIONAN	09152460073	
5. EDUARDOUR M. ESTRADA	SK CHAIRMAN	magangao	TABIONAN		
6. RICHARD M. ZOLETA	Brgy KAGAWAD	DUNGUNIN	TABIONAN		
7. WILMA S. MEDENILLA	Brgy. KAGAWAD	Caimanga	TABIONAN		
8. AILENE S. MOTOL	Brgy. Kagawad	Dungunin	TABIONAN	09100746797	

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon
(MOMARO)

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
9. EDSEL III PABLO Ruben Padelina	BRGY HAGAWAD	CENTRAL II	TABIONAN		
10. Ruben Padelina	BRGY Kagawad	~~Tabionan~~ Ono	Tabionan		
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Preparer – GRIDS

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon
(MOMARO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
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Preparer – GRIDS, INC.

PANGALAN	POSISYON	SITIO	BARANGAY	CONTACT NUMBER	PIRMA
1. Mikaella C. Morada	Junior Environmental Managment Specialist			0976-0852-191	
2. Japelle C. Castillo	Research Assistant			09655205914	
3. Precious Teaño	Research Assistant			0998-187-0313	
4. Sarena Grace Valencia	Socio Consultant				
5. DJ Valencio	Research Assistant				
6. Carl AK Sanchez	Research Assistant			09669085887	
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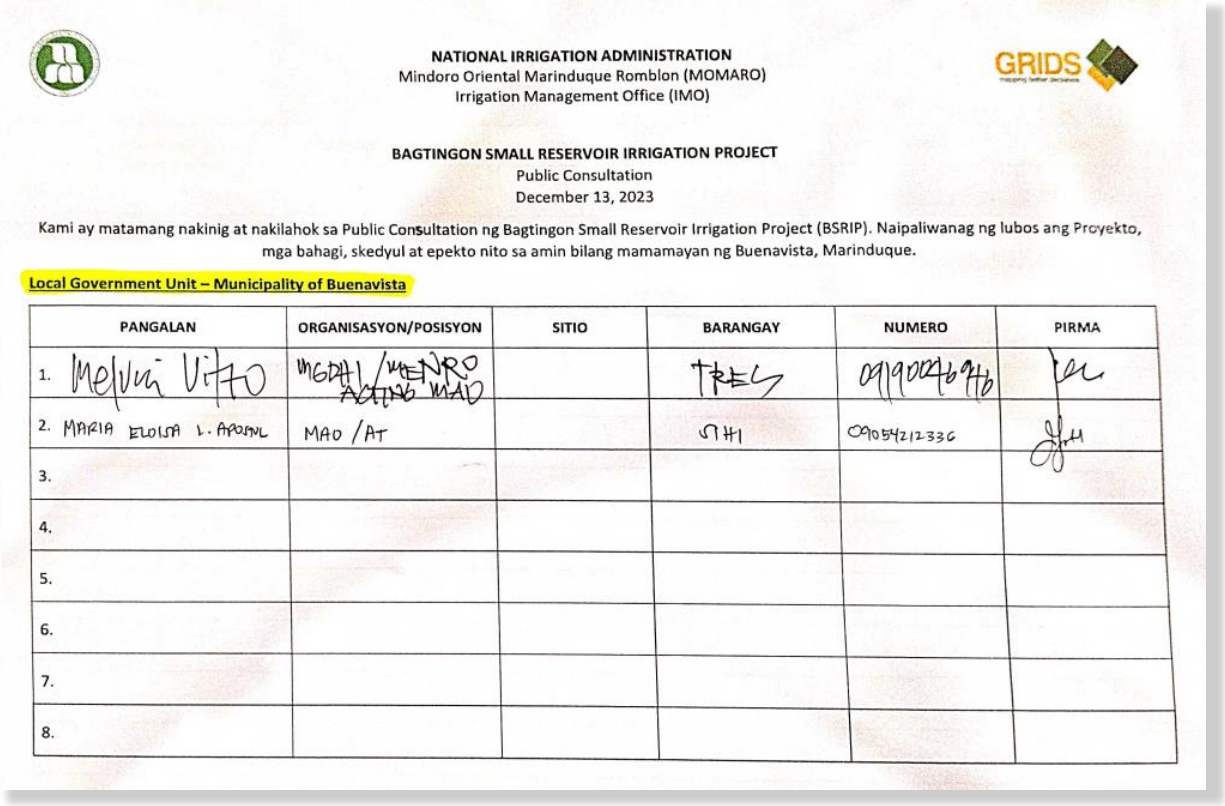
LGU – Buenavista



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
December 13, 2023

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Local Government Unit – Municipality of Buenavista

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. Melvin Vitto	MGDH / MENRO ACTING MAD		TRES	09190246946	
2. MARIA ELOISA L. APAPAL	MAO / AT		STH1	09054212336	
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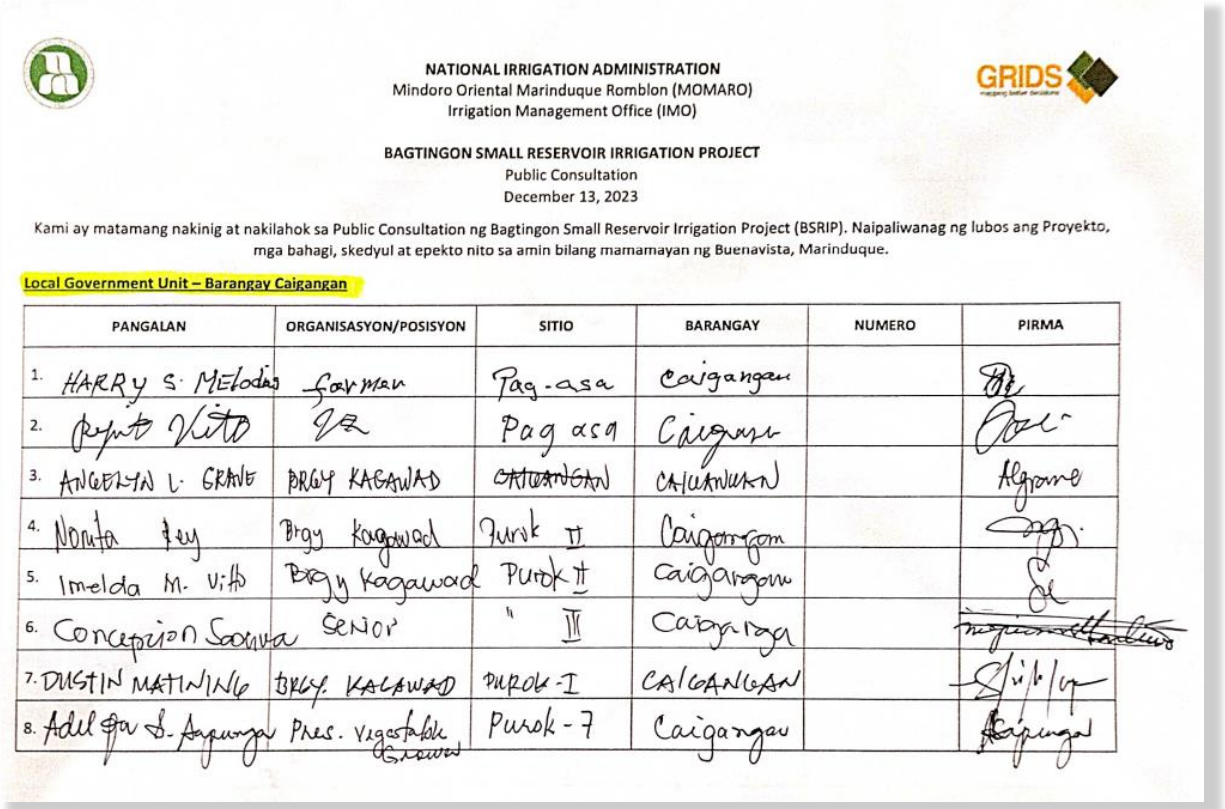
LGU – Barangay Caigangan, Buenavista



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Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

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Public Consultation
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Local Government Unit – Barangay Caigangan

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. HARRY S. Melodas	Farman	Pag-asa	Caigangan		
2. Reynato Vitto	Sr	Pag asa	Caigangan		
3. ANGELYN L. GRANE	BRGY KAGAWAD	CAIGANGAN	CAIGANGAN		
4. Nonita Rey	Brgy Kagawad	Purok II	Caigangan		
5. Imelda M. Vitto	Brgy Kagawad	Purok II	Caigangan		
6. Concepcion Saavia	Senior	" III	Caigangan		
7. DUSTIN MATINING	BRGY. KAGAWAD	PUROK-I	CAIGANGAN		
8. Adulfo S. Aguinga	Pres. Vigasfabk Group	Purok-7	Caigangan		

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
9. JONABETH M. VITTO	PB	PUROK 7	CAIGANGAN	09081661462	
10. RODOLFO M. UTO	KGD.	PUROK 7	CAIGANGAN	09511204087	
11. JHONNY S SARMIENTO	TANOD CHIEF	PUROK 1	CAIGANGAN		
12 Jacinto xatin g	Kgd	purok 11	11		
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LGU – Barangay Bagtingon, Buenavista

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
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Local Government Unit – Barangay Bagtingon

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. JOSEPH J. CIELA	BM	PUROK II	BAGTINGON	09074190687	
2. ZALLY S. JOBOG JR	PRESIDENT	PUROK II	BAGTINGON		
3. GENEVIEVE VALENZUELA	BRGY. OFF	PUROK II	BAGTINGON	09812775707	
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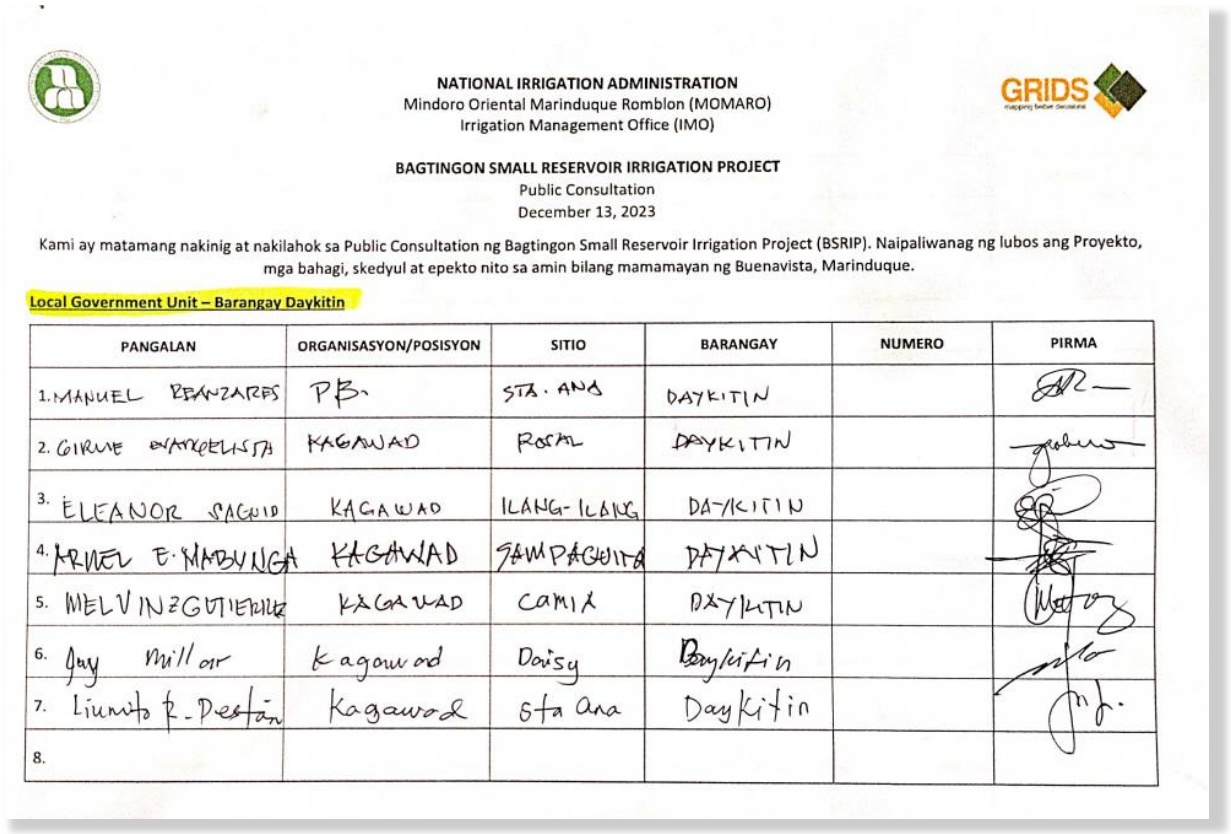
LGU – Barangay Daykitin, Buenavista



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
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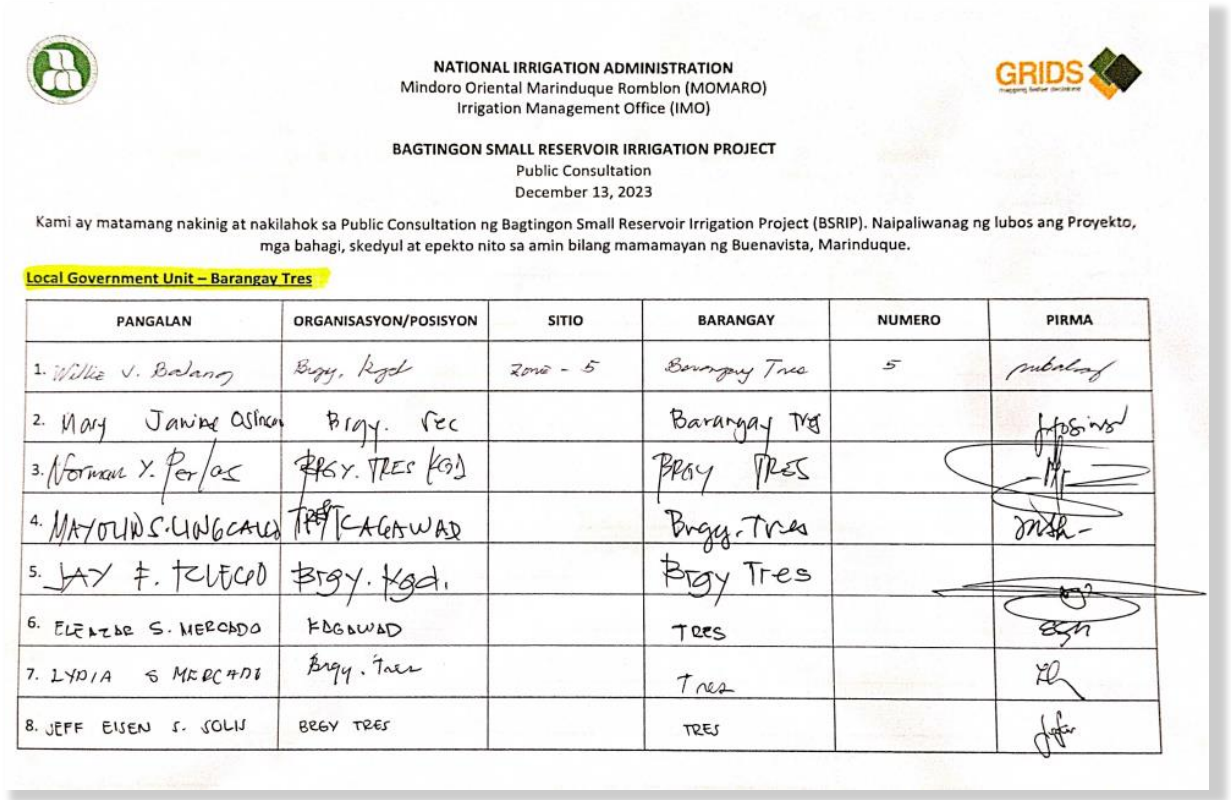
Local Government Unit – Barangay Daykitin

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. MANUEL REANZARES	PB.	STA. ANA	DAYKITIN		
2. GIRLIE EVANGELISTA	KAGAWAD	ROSAL	DAYKITIN		
3. ELEANOR SAGUID	KAGAWAD	ILANG-ILANG	DAYKITIN		
4. ARNEL E. MABUNGA	KAGAWAD	SAMPAGUITA	DAYKITIN		
5. MELVIN ZGUTIERREZ	KAGAWAD	CAMIA	DAYKITIN		
6. Jay Millor	kagawad	Daisy	Daykitin		
7. Liunito R. Destajo	Kagawad	Sta Ana	Daykitin		
8.					

LGU – Barangay Tres, Buenavista



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
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Local Government Unit – Barangay Tres

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. Willie V. Belang	Brgy. Kgd	Zone - 5	Barangay Tres	5	
2. Mary Janine Osinca	Brgy. Sec		Barangay Tres		
3. Norman Y. Perlas	BRGY. TRES KGD		Brgy Tres		
4. MAYOLINS. LINGCAUG	TRES/CAGAWAD		Brgy. Tres		
5. JAY F. TOLEDO	Brgy. Kgd.		Brgy Tres		
6. ELEANOR S. MERCADO	KAGAWAD		TRES		
7. LYDIA S MERCADO	Brgy. Tres		Tres		
8. JEFF EISEN S. SOLIS	BRGY TRES		TRES		

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
9. Claudette Villavicencio	Brgy Kagawad	Zone 2	tres	09810513462	
10. Elsa S. Sarili	PB		tres	09612656602	
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LGU – Barangay Dos, Buenavista

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
December 13, 2023

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Local Government Unit – Barangay Dos

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. RANDOLPH DIMAANO	KAGAWAD		DOS		
2. Alma Manda	Icagawad		DOS		
3. Emie Ben Frayre	Secretary		DOS		
4. NEIL JEFFREY SADIWA	KAGAWAD		DOS		
5. Alicia S. Nuceu	Farmers		Caigana		
6.					
7.					
8.					

Proponent – NIA – MOMARO IMO

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
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National Irrigation Administration (NIA)

PANGALAN	ORGANISASYON/POSISYON	SITIO	BARANGAY	NUMERO	PIRMA
1. Zyrhize G. Togonon	Foreman A		Laylay	09504408743	
2. RELMAR P. MORALES	ENGINEER B		SUMANGGA	09611746275	
3. DWEHY JANE O. MORALES	ENG'R A		SUMANGGA	09955898620	
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Preparer – GRIDS

NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon
(MOMARO)

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT
Public Consultation
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Preparer – GRIDS, INC.

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1. Mikaella C. Morada	Junior Environmental management specialist			0976- 0852-191	
2. Sarena Grace Valencia	Socio Consultant				
3. Jayzelle G. Cartillo	Research Assistant			09555205316	
4. Carl AK Santos	Research Assistant			09669085887	
5. Precious Joy P. Teaño	Research Assistant			09971870913	
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Annex D. IEC Material – Brochure

Epekto ng Proyekto sa Kapaligiran

Walang negatibong epekto ang proyekto ang inaasahan sa larangan ng lipunan, ekonomiya, kalikasan o sa flora at fauna na hindi matutugunan ng proyekto.

Ang mga epekto sa kapaligiran ay pansamantala lamang sa construction phase ng proyekto. Kapag tumatakbo na ang proyekto, kaunti na lamang ang inaasahang magiging epekto ng proyekto sa kapaligiran.

Epekto ng Proyekto sa Ekonomiya ng Lipunan

Habang itinatayo ang proyekto, ito ay lilikha ng karagdagang trabaho para sa mamamayan ng Bagtingon at mapapabuti nito ang kalagayan ng mga magsasaka.

Mga Benepisyo mula sa Bagtingon SRIP

- Patubig
- Pagsasakang Pangtubig
- Pagkontrol sa baha
- Hydro-power
- Panustos o suplay ng tubig
- Recreational Facilities

Iba pang mga benepisyo:

- Magbibigay ng karagdagang trabaho
- Mapapabuti ang kalagayan ng kapaligiran at ng mga magsasaka

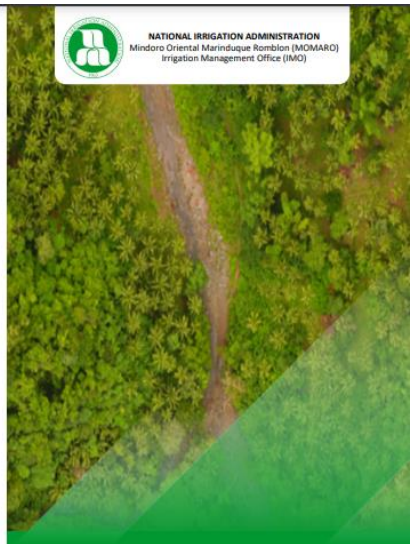
Kung may katanungan o suhestiyon, maaaring kontakin ang

National Irrigation Administration (NIA) - MIMAROPA

Facebook: nia4bmimaropa
Website: region4b.nia.gov.ph
Email: mimaropa@nia.gov.ph
Telephone No: (043) 288-7267
Cellphone No.: 0917 849 5267

Geographic Innovations for Development Solutions, Inc.

Facebook: Geographic Innovations for Development Solutions, Inc.
Email: grids.inc.ph@gmail.com
Telephone No.: (049) 545-1576
Cellphone No.: 0927 886 9637



NATIONAL IRRIGATION ADMINISTRATION
Mindoro Oriental Marinduque Romblon (MOMARO)
Irrigation Management Office (IMO)

Social and Environmental Impact Assessment

BAGTINGON SMALL RESERVOIR IRRIGATION PROJECT (BSRIP)

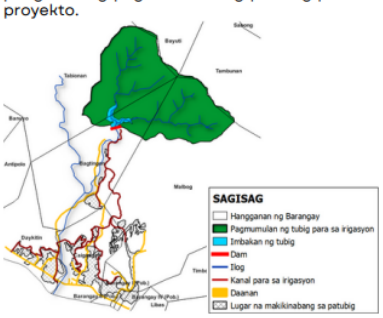
Small Reservoir Irrigation Project (SRIP)

Ang Small Reservoir Irrigation Project (SRIPs) ay isa sa mga pangunahing proyekto ng NIA sa ilalim ng 10-year Accelerated Irrigation Development Program ng national government.

Ang SRIPs ay naglalayong magpatayo ng katamtamang laki ng dam at mga istruktura upang magsilbing imbakan ng tubig sa panahon ng tag-ulan at para makapagbigay ng patubig sa mga sakahan sa loob ng buong taon.

Lokasyon ng Proyekto

Ang lugar ng pag-aaral ay sumasakop sa mga tinukoy na mga lugar na direktang maapektuhan, tulad ng lokasyon ng inihahandang dam, ang 16.90 ektaryang lugar na magsisilbing imbakan ng tubig sa Barangay Bagtingon sa Bayan ng Buenavista (11.86 ha) at Barangay Tabionan sa Bayan ng Gasan (5.04 ha), Marinduque. Kasama rin sa pag-aaral ang 226 ektaryang lugar na makikinabang sa patubig ng proyekto na sasakop sa ilang mga pook pang-agrikultura sa walong barangay ng Bayan ng Buenavista. Kabilang rito ang Barangay ng Bagtingon, Daykitin, Caigangan, Uno, Dos, Tres, Quatro, at Malbog. Kasama sa pag-aaral ang Ilog Caigangan, na siyang pangunahing pagmumulan ng patubig para sa proyekto.



Bagtingon SRIP

Ang iminungkahing proyekto ay matatagpuan ilang metro lamang mula sa ibabang bahagi ng ilog mula sa pinagtagpong ilog ng Banlawanin at Subling na kalaunan ay tinawag na ilog Bagtingon bilang kalapit bahagi ng Tablas Strait.

Lugar ng paagusan (*Drainage Area*) = 7.65 sq.km

Dam

- Uri: Zoned Embankment Dam
- Taas : 27.93 m
- Haba ng tuktok : 226.65 m
- Lapad sa tuktok: 9.0 m
- Imbakan ng tubig: 0.16 sq.km.
- Kabuuang kapasidad ng Imbakan: 0.93 mcm

Spillway

- Uri: Ungated
- Haba: 25 m
- Taas: 1.00 m

Reservoir

- Normal Water Surface Elevation: 102.0 m
- Minimum W.S. Elevation: 93.50 m
- Maximum W.S . Elevation: 105.51 m
- Reservoir Area at Normal W.S. Elevation: 10.43 ha
- Reservoir Area at Min. W.S. Elevation: 5.37 ha

Irrigable Area

- Tag-ulan: 226 ha
- Tagtuyot: 226 ha

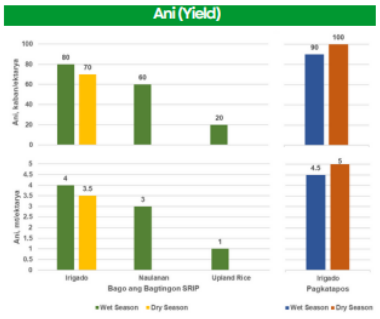
Sitwasyon kapag wala ang Batingon SRIP

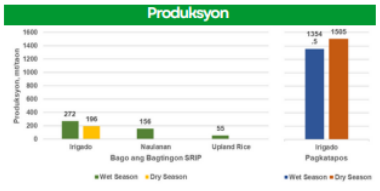
DESKRIPSYON	LAWAK (ektarya)	ANI (mt/ektarya)	ANI (kaban/ektarya)	PRODUKSYON (mt/taon)
Tag-Ulan				
Irigado	68	4.0	80	272
Naulanan	52	3.0	60	156
Upland Rice	55	1.0	20	55
Tag-Init				
Irigado	56	3.5	70	196
Kabuuan				679 (13,680 kaban/taon)

Sitwasyon kapag mayroong Batingon SRIP

DESKRIPSYON	LAWAK (ektarya)	ANI (mt/ektarya)	ANI (kaban/ektarya)	PRODUKSYON (mt/taon)
Tag-Ulan:				
Irigado	226	4.5	90	1,354.50
Tag-Init:				
Irigado	226	5.0	100	1,505.00
Kabuuan				2,859.50 (57,190 cavans/year)

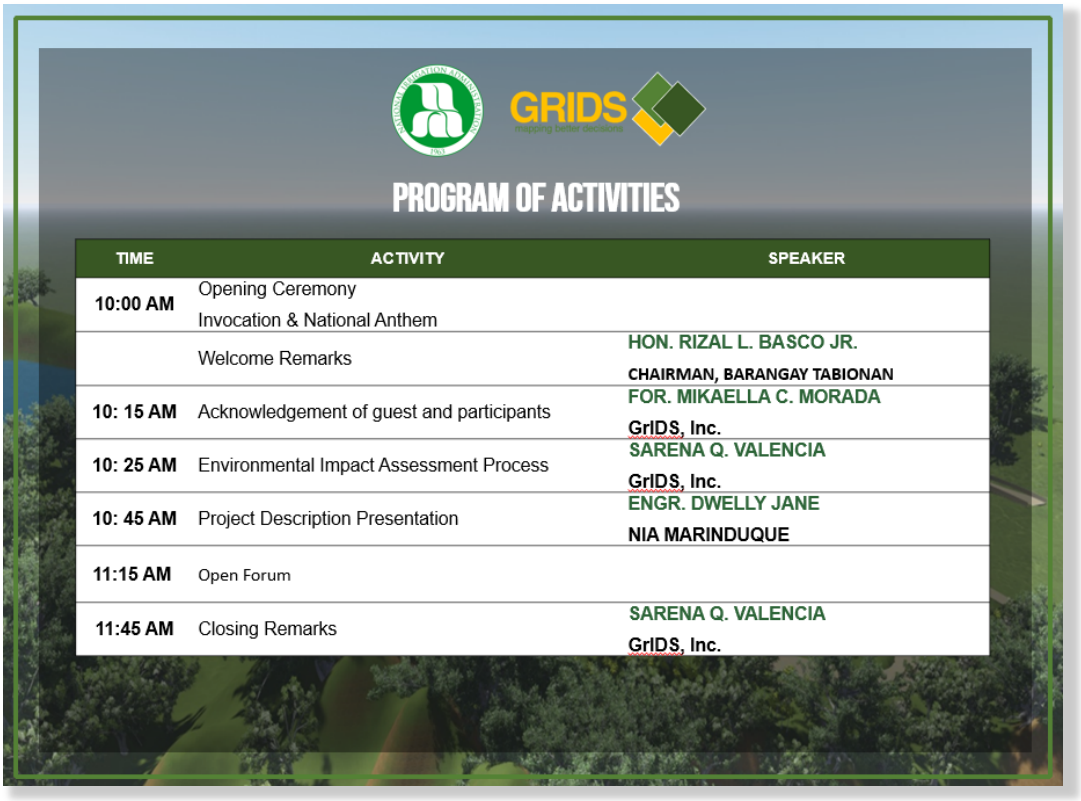
Pagsasalarawan ng sitwasyon bago at pagkatapos ng Batingon SRIP





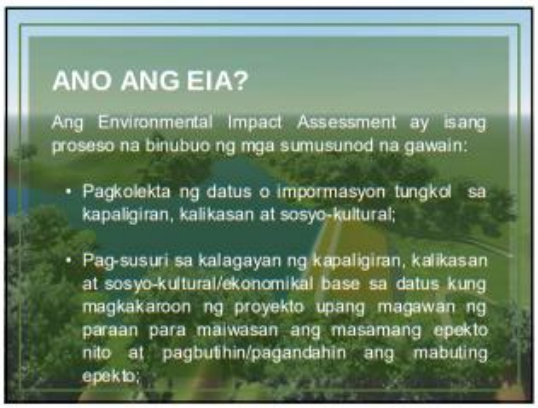
Annex E. Program of Activities during the Project Orientation

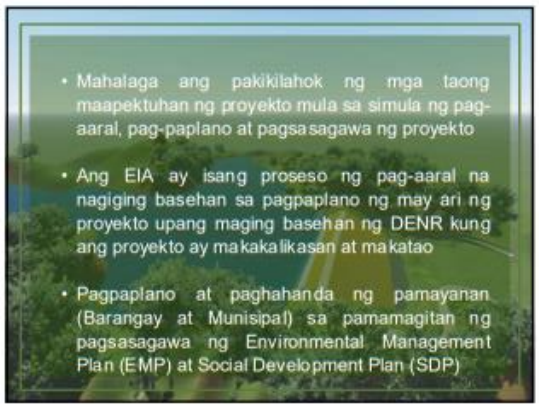
November 24, 2023 – Municipality of Gasan

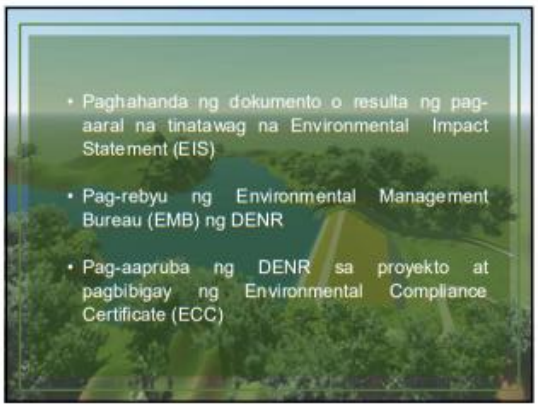


December 13, 2023 – Municipality of Buenavista

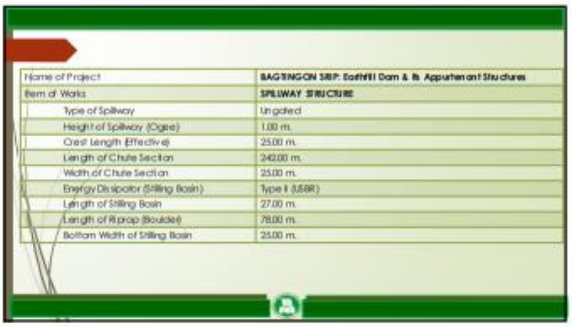
Annex F. Powerpoint Presentation - EIA Process

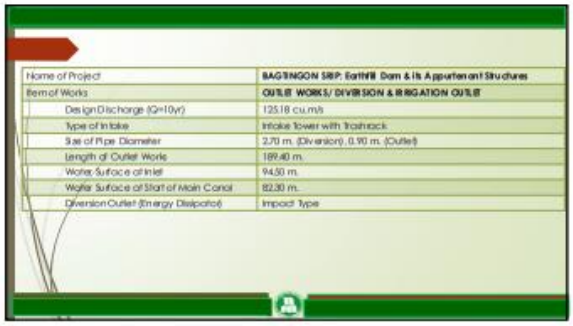


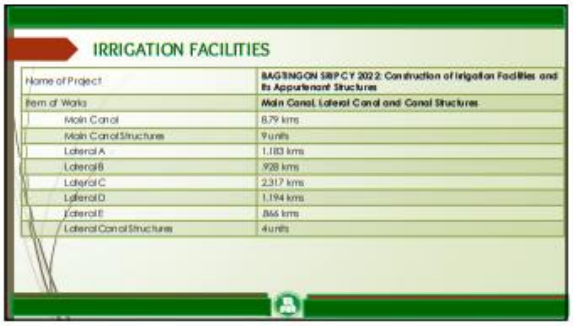


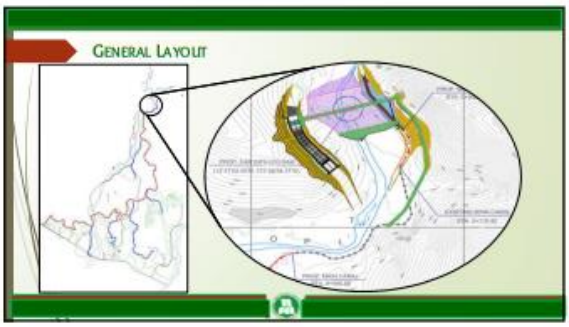


Annex G. Powerpoint Presentation – Project Profile








GENERAL LAYOUT

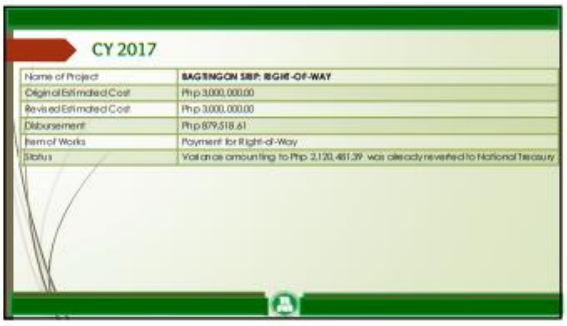

BAGTINGON SRIP
FINANCIAL STATUS / REQUIREMENT

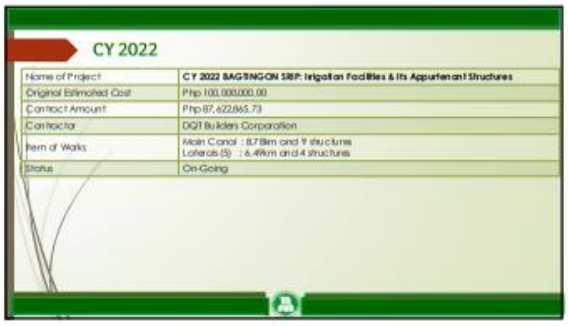

CY 2013
Name of Project
BAGTINGON SRIP: CONSTRUCTION OF ACCESS ROAD TO DAM SITE
Original Estimated Cost
Php 27,645,000.00
Revised Estimated Cost
Php 11,002,144.32
Disbursement
Php 11,002,144.32
Item of Works
Construction of 1.48km Access Road to Dam site
Status
Variance amounting to Php 16,642,855.68 was already reverted to Nation al Treasury on April 24, 2018

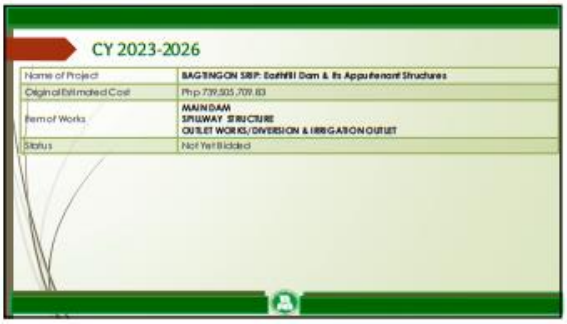

CY 2014
Name of Project
BAGTINGON SRIP: CONSTRUCTION OF IRRIGATION FACILITIES
Original Estimated Cost
Php 30,000,000.00
Revised Estimated Cost
Php 8,821,122.57
Disbursement
Php 8,821,122.57
Item of Works
Construction of 3 units of Irrigation Structure and Project Facility (Sta. 0+11042-0+585.69)
Status
Variance amounting to Php 21,178,877.43 was already reverted to National Treasury on April 24, 2018


CY 2015
Name of Project
BAGTINGON SRIP: RIGHT-OF-WAY
Original Estimated Cost
Php 20,000,000.00
Revised Estimated Cost
Php 20,000,000.00
Disbursement
Php 500,000.00
Item of Works
Payment for Right-of-Way
Status
On-Going


CY 2016
Name of Project
BAGTINGON SRIP: RIGHT-OF-WAY
Original Estimated Cost
Php 3,000,000.00
Revised Estimated Cost
Php 3,000,000.00
Disbursement
Php 3,000,000.00
Item of Works
Institutional Development Program
Status
Completed

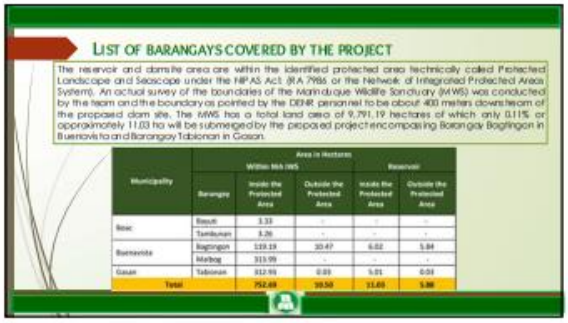

CY 2017
Name of Project
BAGTINGON SRIP: RIGHT-OF-WAY
Original Estimated Cost
Php 3,000,000.00
Revised Estimated Cost
Php 3,000,000.00
Disbursement
Php 879,518.61
Item of Works
Payment for Right-of-Way
Status
Variance amounting to Php 2,120,481.39 was already reverted to National Treasury


CY 2022
Name of Project
CY 2022 BAGTINGON SRIP: Irrigation Facilities & Its Appurtenant Structures
Original Estimated Cost
Php 100,000,000.00
Contract Amount
Php 87,622,865.73
Contractor
DQT Builders Corporation
Item of Works
Main Canal : 8.7 8km and 9 structures
Laterals (5) : 6.49km and 4 structures
Status
On-Going

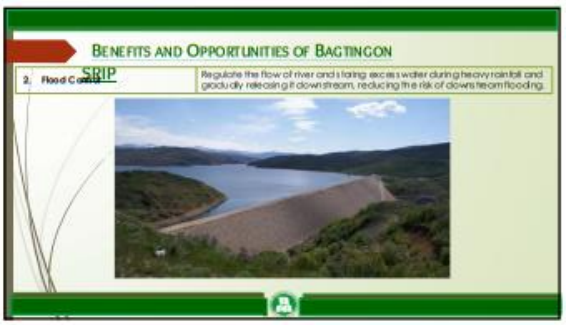

CY 2023-2026
Name of Project
BAGTINGON SRIP: Earthfill Dam & Its Appurtenant Structures
Original Estimated Cost
Php 739,505,709.83
Item of Works
MAIN DAM
SPILLWAY STRUCTURE
OUTLET WORKS/DIVERSION & IRRIGATION OUTLET
Status
Not Yet Bidded

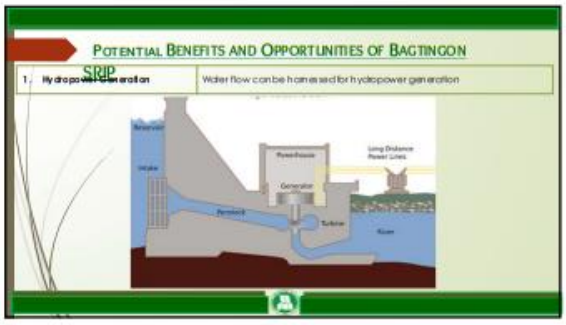

CY 2023-2026
Name of Project
BAGTINGON SRIP: Earthfill Dam & Its Appurtenant Structures

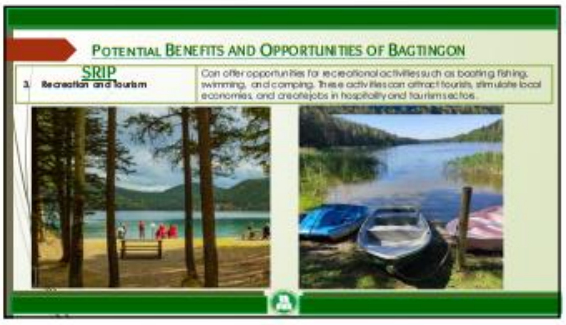

BAGTINGON SRIP LOCATION MAP
LOCATION MAP

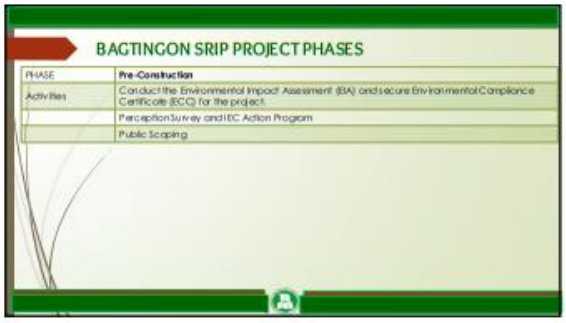

LIST OF BARANGAYS COVERED BY THE PROJECT
The reservoir and damsite area are within the identified protected area technically called Protected Landscape and Seascape under the NIPAS Act (RA 7586 or the Network of Integrated Protected Areas System). An actual survey of the boundaries of the Mainit-duque Wildlife Sanctuary (MWS) was conducted by the team and the boundary as pointed by the DENR personnel to be about 400 meters downstream of the proposed dam site. The MWS has a total land area of 9,791.19 hectares of which only 0.11% or approximately 11.03 ha will be submerged by the proposed project encompassing Barangay Bagtingon in Buenavista and Barangay Tabionan in Gasan.

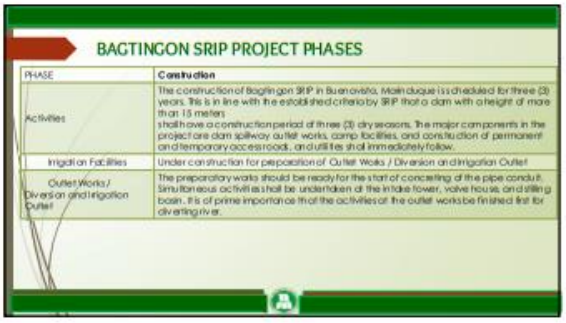

BENEFITS AND OPPORTUNITIES OF BAGTINGON
SRIP
1. Water Supply
Water storage providing year round irrigation to 226 hrs. of farm lands of 238 farmer beneficiaries. It can also be used for domestic, industrial, and municipal needs.

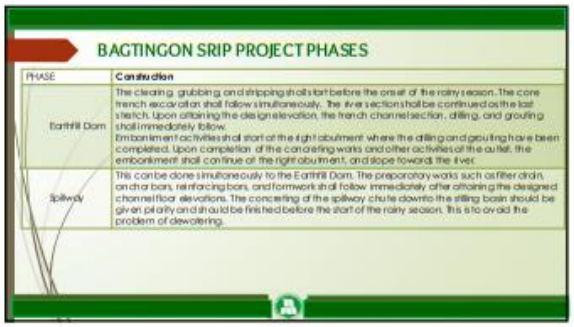

BENEFITS AND OPPORTUNITIES OF BAGTINGON
SRIP
2. Flood Control
Regulate the flow of river and storing excess water during heavy rainfall and gradually releasing it downstream, reducing the risk of downstream flooding.


POTENTIAL BENEFITS AND OPPORTUNITIES OF BAGTINGON
SRIP
1. Hydropower Generation
Water flow can be harnessed for hydropower generation


POTENTIAL BENEFITS AND OPPORTUNITIES OF BAGTINGON
SRIP
3. Recreation and Tourism
Can offer opportunities for recreational activities such as boating, fishing, swimming, and camping. These activities can attract tourists, stimulate local economies, and create jobs in hospitality and tourism sectors.

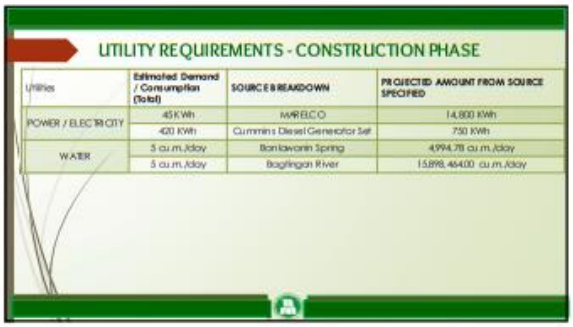

BAGTINGON SRIP PROJECT PHASES
PHASE
Pre-Construction
Activities
Conduct the Environmental Impact Assessment (EIA) and secure Environmental Compliance Certificate (ECC) for the project.
Perception Survey and IEC Action Program
Public Scoping


BAGTINGON SRIP PROJECT PHASES
PHASE
Construction
Activities
The construction of Bagtingon SRIP in Buenavista, Maimbuque is scheduled for three (3) years. This is in line with the established criteria by SRIP that a dam with a height of more than 15 meters
shall have a construction period of three (3) dry seasons. The major components in the project are dam spillway outlet works, camp facilities, and construction of permanent and temporary access roads, and utilities shall immediately follow.
Irrigation Facilities
Under construction for preparation of Outlet Works / Diversion and Irrigation Outlet
Outlet Works / Diversion and Irrigation Outlet
The preparatory works should be ready for the start of concreting of the pipe conduit. Simultaneous activities shall be undertaken at the intake tower, valve house, and stilling basin. It is of prime importance that the activities at the outlet works be finished first for diverting river.



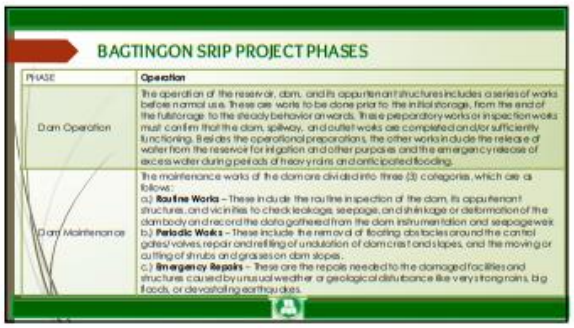
BAGTINGON SRIP PROJECT PHASES

PHASE	Construction
Earthfill Dam	The clearing, grubbing and stripping shall start before the onset of the rainy season. The core trench excavation shall follow simultaneously. The river section shall be continued as the last stretch. Upon attaining the design elevation, the trench channel section, drilling, and grouting shall immediately follow. Embankment activities shall start at the right abutment where the drilling and grouting have been completed. Upon completion of the concreting works and other activities at the outlet, the embankment shall continue at the right abutment, and slope towards the river.
Spillway	This can be done simultaneously to the Earthfill Dam. The preparatory works such as filter drain, anchor bars, reinforcing bars, and formwork shall follow immediately after attaining the designed channel floor elevations. The concreting of the spillway chute down to the stilling basin should be given priority and should be finished before the start of the rainy season. This is to avoid the problem of dewatering.



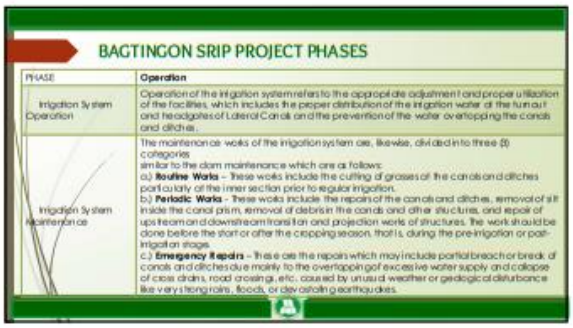
UTILITY REQUIREMENTS - CONSTRUCTION PHASE

Utilities	Estimated Demand / Consumption (Total)	SOURCE BREAKDOWN	PROJECTED AMOUNT FROM SOURCE SPECIFIED
POWER / ELECTRICITY	45 KWh	MARELCO	14,800 KWh
	420 KWh	Cummins Diesel Generator Set	750 KWh
WATER	5 cu.m./day	Bonlawanin Spring	4,994.78 cu.m./day
	5 cu.m./day	Bagtingan River	15,898.46400 cu.m./day



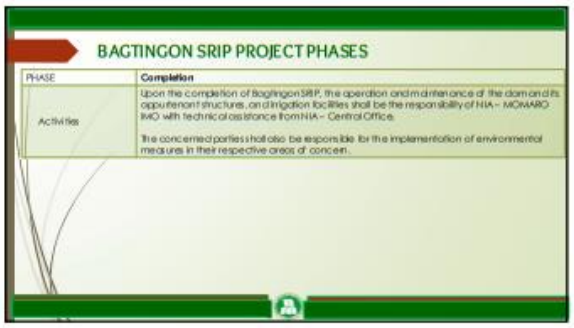
BAGTINGON SRIP PROJECT PHASES

PHASE	Operation
Dam Operation	The operation of the reservoir, dam, and its appurtenant structures includes a series of works before normal use. These are works to be done prior to the initial storage, from the end of the full storage to the steady behavior onwards. These preparatory works or inspection works must confirm that the dam, spillway, and outlet works are completed and/or sufficiently functioning. Besides the operational preparations, the other works include the release of water from the reservoir for irrigation and other purposes and the emergency release of excess water during periods of heavy rains and anticipated flooding.
Dam Maintenance	The maintenance works of the dam are divided into three (3) categories, which are as follows: a.) **Routine Works** – These include the routine inspection of the dam, its appurtenant structures, and vicinities to check leakage, seepage, and shrinkage or deformation of the dam body and record the data gathered from the dam instrumentation and seepage weir. b.) **Periodic Works** – These include the removal of floating obstacles around the control gates/ valves, repair and refilling of undulation of dam crest and slopes, and the mowing or cutting of shrubs and grasses on dam slopes. c.) **Emergency Repairs** – These are the repairs needed to the damaged facilities and structures caused by unusual weather or geological disturbance like very strong rains, big floods, or devastating earthquakes.



BAGTINGON SRIP PROJECT PHASES

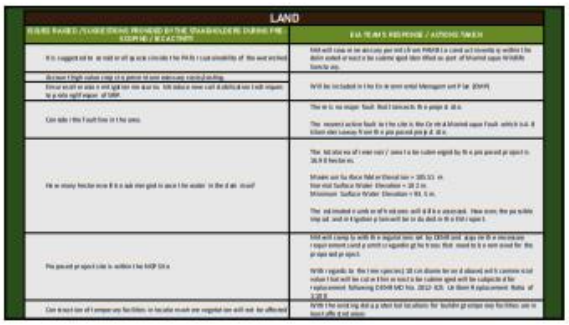
PHASE	Operation
Irrigation System Operation	Operation of the irrigation system refers to the appropriate adjustment and proper utilization of the facilities, which includes the proper distribution of the irrigation water at the turnout and headgates of Lateral Canals and the prevention of the water overtopping the canals and ditches.
Irrigation System Maintenance	The maintenance works of the irrigation system are, likewise, divided into three (3) categories similar to the dam maintenance which are as follows: a.) **Routine Works** – These works include the cutting of grasses of the canals and ditches particularly of the inner section prior to regular irrigation. b.) **Periodic Works** – These works include the repairs of the canals and ditches, removal of silt inside the canal prism, removal of debris in the canals and other structures, and repair of ups treams and downstream transition and projection works of structures. The work should be done before the start or after the cropping season, that is, during the pre-irrigation or post-irrigation stages. c.) **Emergency Repairs** – These are the repairs which may include partial breach or break of canals and ditches due mainly to the overtopping of excessive water supply and collapse of cross drains, road crossing, etc. caused by unusual weather or geological disturbance like very strong rains, floods, or devastating earthquakes.

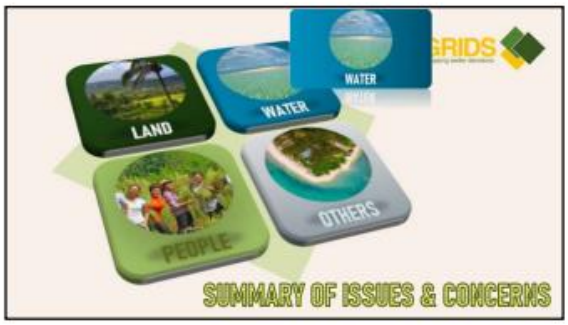


BAGTINGON SRIP PROJECT PHASES

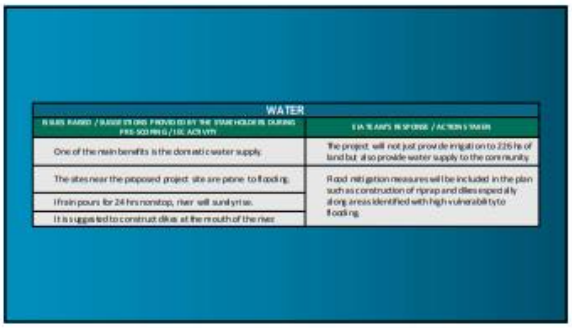
PHASE	Completion
Activities	Upon the completion of Bagtingon SRIP, the operation and maintenance of the dam and its appurtenant structures, and irrigation facilities shall be the responsibility of NIA – MOWARO IMO with technical assistance from NIA – Central Office. The concerned parties shall also be responsible for the implementation of environmental measures in their respective areas of concern.

Annex H. Powerpoint Presentation – Summary of Issues & Concerns raised during the initially conducted Public Scoping



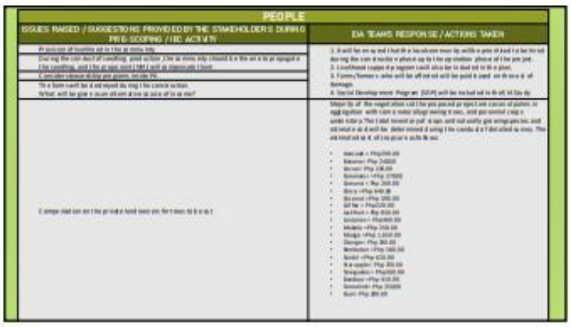



WATER

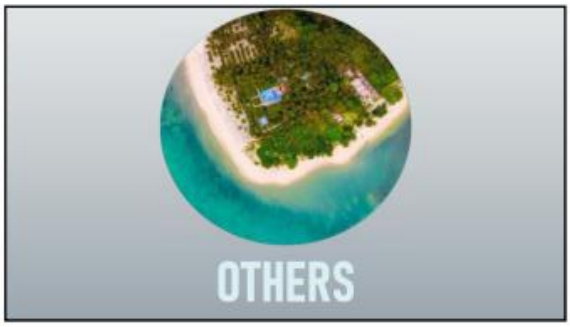

WATER
One of the main benefits is the domestic water supply
The project will not just provide irrigation to 225 ha of land but also provide water supply to the community
The sites near the proposed project site are prone to flooding.
Flood mitigation measures will be included in the plan such as construction of riprap and dikes especially along areas identified with high vulnerability to flooding.
If rain pours for 24 hrs nonstop, river will surely rise.
It is suggested to construct dikes at the mouth of the river

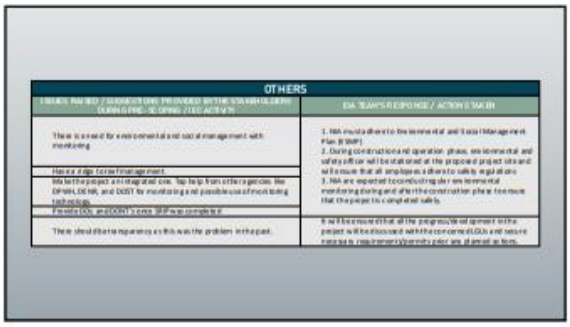

GRIDS
WATER
OTHERS
PEOPLE
SUMMARY OF ISSUES & CONCERNS


PEOPLE


PEOPLE


GRIDS
WATER
LAND
OTHERS
PEOPLE
SUMMARY OF ISSUES & CONCERNS


OTHERS


OTHERS

Annex I. Photo Documentation

Registration of the participants

Participants prior to the start of Project Orientation

Hon. Rizal L. Basco Jr., *Chairman of Brgy. Tabionan (left)* & ***Mr. Melvin Vitto,*** *MENRO (right)* delivered the Opening Remarks

For. Mikaella C. Morada from GRiDS, Inc. acted as the facilitator for the activity. She also led the presentation of the summary of issues / concerns raised from the initially conducted Public Scoping

Ms. Sarena Q. Valencia, Socio Consultant from GRIDS led the discussion on the Environmental Impact Assessment (EIA) Process

Engr. Dwelly Jane Morales, one of the Junior Engineers from NIA – MOMARO IMO presented the project profile.

Open Forum