

ENVIRONMENTAL IMPACT STATEMENT (EIS)

19.7MW ILAGUEN 3A HYDRO-ELECTRIC POWER PLANT

Barangay San Miguel, Municipality of Echague, Province of Isabela



EXECUTIVE SUMMARY

**FILIPINO
VERSION**

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EXECUTIVE SUMMARY

Ang elektrisidad ay may mahalagang papel sa kaunlaran dahil ang pangangailangan dito ay patuloy na nataas sanhi ng mabilis na pagtaas ng populasyon, paglawak ng mga mga aktibidad sa komersyo, at pagpapatayo ng mga industriya. Ang mga ito ay nangyayari hindi lamang sa mga lungsod kundi pati na rin sa mga rural na bahagi ng bansa partikular ang Rehiyon 2 o ang Cagayan Valley kung saan ang pagsulong ng pamumuhay ay napakabilis. Inaasahan na magkakaroon ng pangangailangan sa karagdagang pasilidad sa paglikha ng elektrisidad sa mga darating na taon, hindi lamang sa probinsya ng Isabela kundi maging sa buong rehiyon. Ang pasilidad sa Isabela na nagbibigay ng elektrisidad sa Luzon grid ay dumedepende sa mga supply mula sa ibang karatig probinsya, kaya naman madalas ay may kakulangan sa suplay ng elektrisidad sa nasabing probinsya.

Ang Pilipinas ay may maraming angking yaman, kung saan ang pamahalaan, sa tulong ng pribadong sektor, ay patuloy na nagsusumikap para mapangasiwaan ng maayos ang mga likas na mapagkukunan ng enerhiya. Ang pangunahing layunin ay mapanatili ang paggamit ng *renewable energy* sa pamamagitan ng pagpapalakas sa kapasidad na makalikha ng elektrisidad na nakakabuti sa kapaligiran at paggamit ng malinis na enerhiya. Ang mga halimbawa nito ay ang *wind power plants*, *geothermal power plants*, at *hydropower plants*.

Ang pag-usbong ng *hydropower resources* sa Pilipinas ay mahalaga sa pagtugon sa pangangailangan sa elektrisidad sa mga darating na taon. Ito din ay naayon sa *National Renewable Energy Program (NREP)* na programa ng Kagawaran ng Enerhiya at *National Renewable Energy Board's (NREB)* na naglalayong triplehin ang kapasidad *renewable energy* mula taong 2010 hanggang taong 2030. Dahil sa malaking potensyal ng rehiyon para sa hydropower, ang Kagawaran ng Enerhiya ay patuloy na patatatagin ang pagsulong ng hydropower at hihikayatin ang mga lokal at dayuhang namumuhunan sa ganitong klaseng layunin.

Samakatuwid, sa pagsasaalang-alang ng mga kasalukuyang probisyon sa batas, patakaran, at panuntunan, ang *proponent* ay sinigurado na nakakuha ng mga kaukulang *clearances* at *permits* bilang bahagi ng tungkulin sa pag-aalaga ng kapaligiran.

PROJECT DESCRIPTION

Project Name	:	19.7MW Ilaguen 3A Hydro-Electric Power Plant
Project Type	:	Run-off-the-River Hydropower Facility (with tunnel)
Project Location	:	Barangay San Miguel, Municipality of Echague, Province of Isabela
Project Area	:	54.56 Hectares
Project Capacity	:	19.7 MW

Project Components

Ang mga pangunahing components ng proyekto ay nakalista sa Table 1. Ang *weir* at ang *powerhouse* ay matatagpuan sa magkabilang dulo ng *project area* na *accessible* sa pamamagitan ng 6.48 km *internal road*.

Table 1. Main Project Components and Characteristics

Weir	Elevation	349 masl	2,748 m ²
	Height	25 m	
Dam	Crest elevation	357.2m	2,748 m ² Weir
	Crest length	136 m	29 ha
	Maximum dam height	25.2 m	Inundated
	Length of spillway section	100 m	area
	Forms of dissipation	Flip trajectory bucket	
Powerhouse	Elevation	256 masl	225 m ²
	Suction height	-3.5 m	
Water Inlet	Referral traffic	35 m ³ /s	397 m ²
	Floor elevation	340 m	
Headrace Tunnel	Overall length	2,700 m	13,500 m ²
	Tunnel internal diameter	5.0 m	
Substation	Type	6.9kV – 69 kV; 70 km to tapping pt.	100 m ²
Turbines	Type	2x Francis turbines	100 m ²
	Rated discharge	17.5 m ³ /s	

Project Size

Makikita sa ibaba ang sukat ng proyekto base sa sukat ng tubig na kayang ipunin, kapasidad at uri ng dam, sukat ng naanuran ng tubig, at kabuuang sukat ng proyekto.

Table 2. Project size

Total volume of water to be impounded	3 million cubic meter
Capacity and type of dam structure	Roller compacted concrete gravity dam with water storage level of 349 masl at the dam crest
Total area to be inundated	29 hectares
Total project area	54.56 hectares

Process/Technology

Ang proyekto ay may 25 metro na taas ng dam na makakapag ipon ng tubig at may taas ng 349 masl at may tantiyang kapasidad na 19.7 MW.

Project Salient Features

Catchment area above weir site	:	405 km ²
Design discharge	:	17.5 m ³ /s
Reservoir capacity	:	3,000,000 m ³
Reservoir maximum control water level	:	349 m
Safety check flood (1:10,000 AEP) inc. climate change allowance	:	4,010 m ³ /s
Design flood at PH (1:500 AEP)	:	269 mAD
Installed capacity	:	19.7 MW
Mean annual energy (at take-off point)	:	111 GWh
Plant factor	:	49.2%

Sa proyektong ito, ang pinaka-makabuluhang mga alternatibong isinasalang-alang ay kasama ang pagpili ng lokasyon ng reservoir, ang pinaka-naaayong taas ng dam, at panuntunan sa pagpapatakbo ng planta.

Ang disenyo ng pagdaloy ng tubig ay itinakda sa 20% ng Scenario 1 na paglabis ng tubig na dumadaloy. Ang proyekto ay ipinapalagay na patatakbuhan bilang isang planta ng run - of - river (tuloy tuloy na pagdaloy ng tubig sa ilog) na walang kapasidad sa pag-iimbak ng tubig. Ang isang pangalawang modelo ay naitakda upang tantyahin ang gastos ng mga pangunahing bahagi ng pagtatayo ng proyekto (ie paghuhukay at kongkretong pagkakalagay) bilang isang gawain ng taas ng dam. Naka-link ito sa linya ng enerhiya upang tantyahin ang resulta ng nabuo at kita sa iba't ibang taas ng dam.

Ipinagpalagay ang mga sumusunod na mga parameter na pampinansyal: Halaga ng enerhiya: 5.9 PHP / kWh; Rate ng diskwento: 10%; at Tagal ng buhay ng Proyekto: 20 taon mula sa pagpapatakbo. Ang mga resulta ng pag-aaral na ito ay ipinahiwatig na ang pinakamainam na taas ng dam ay nasa paligid ng 25 m, na may Net Project Value (NPV) na 46 m USD at Internal Rate of Return (IRR) na 19.7%. Samakatuwid iminungkahi na pumili ng isang 25 m na taas ng dam bilang batayang opsyon sa kaso ng proyekto ng Ilaguen 3A.

Material Source

Ang mga materyales sa konstruksyon na isasama ay ang mga gabion, boulders, semento, buhangin at bato, masonry, steel bar, galvanized iron, at iba pa. Ang mga kagamitan sa konstruksyon na gagamitin ng tagapagtaguyod o gagamitin ng mga kontratista ay ang backhoe, hand rill machine, plate compactor, dump truck, payloader, water pump, generator set, chainaw, at bulldozer. Ang lahat ng mga materyales para sa kongkretong konstruksyon ay magmumula sa ilog ng Ilagues at ang mga kagamitan sa konstruksyon ay kukuha mula sa pinakamalapit na tagapag suplay sa lugar.

Ang mga pangunahing lugar na isinasalang-alang para sa quarry ay kapareho ng mga lugar na nakilala para sa mga pinagkukunan ng materyales. Ang lugar ng stockpile ay nasa itaas lamang ng quarry site na sumasaklaw sa isang lugar na 3,173 m². Malapit sa stockpile ay ang pansamantalang siltation pond na may kapasidad na 3,146 m³. Ang siltation pond na ito ay magsisilbing sediment trap na makakakuha ng mga nasuspindeng partikulo (pinong buhangin sa magaspang na silt) na may lalim na 1 metro.

PROPOSED LOCATION

Ang Ilaguen 3A *Hydro-electric Power Project* ay matatagpuan sa Barangay San Miguel, Echague, Isabela. Ang kabuuang sakop ng proyektong ito ay may 54.56 ektarya na lawak. Ang proyekto ay kombinasyon ng *run-off-river* at *weir type hydropower plant* na kayang makalikha ng 19.7 MW at makapagbigay ng 111,000,000 kWh na elektrisidad kada taon. Ang geographical locations ng proyekto ay nakalista sa Table 3.

Ang ilog na magagamit sa proyekto ay ang Pinacanauan de Ilaguen na nasa tabi ng mga bundok sa probinsya ng Isabela. Makikita sa Figure 1 ang mga struktura na gagawin sa proyekto katulad ng *tunnel*, *dam*, *powerhouse*, *auxiliary building*, at *access roads*.

Table 3. Geographical Location of Project Facilities

Project Facilities	Coordinates
Powerhouse	16° 35' 36.48" to 16° 35' 41.55" North Latitude 122° 2' 9.24" to 122° 2' 23.14" East Longitude
Tunnel	16° 34' 6.35" to 16° 35' 37.57" North Latitude 122° 1' 50.51" to 122° 2' 18.05" East longitude
Weir	16° 33' 54.73" to 16° 34' 10.28" North Latitude 122° 1' 30.9" to 122° 2' 0.84" East Longitude
Internal Road	16° 34' 9.30" to 16° 35' 40.60" North Latitude 122° 1' 40.12" to 122° 2' 12.62" East Longitude

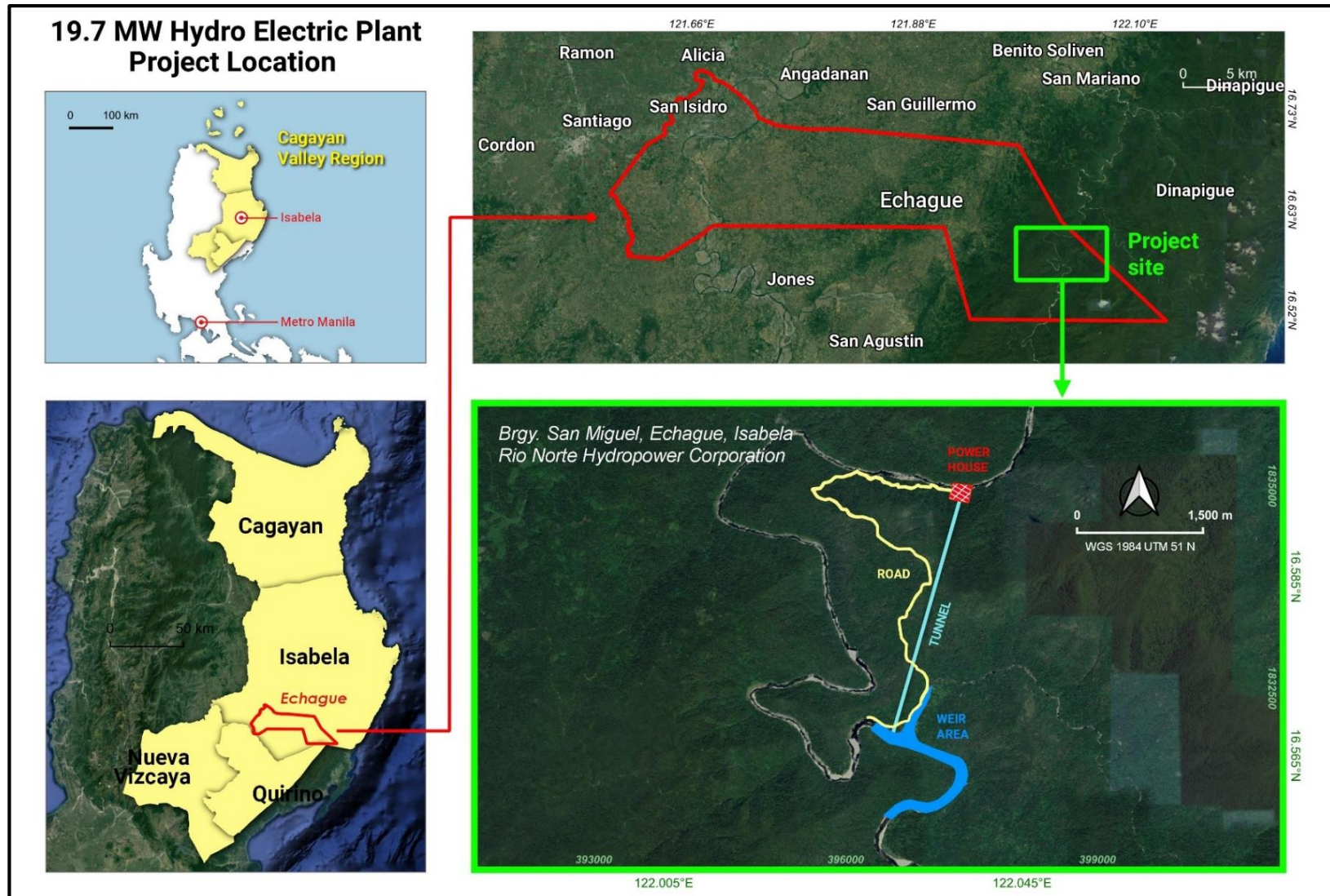


Figure 1. Project Location Map

Project Alternatives

Site Selection

Ang alternatibong napili sa proyekto ay ang pag-iba ng lokasyon ng powerhouse at ang pagbawas ng haba ng tunnel. Ito ay mgreresulta sa pagbawas ng footprint ng proyekto at epekto sa kapaligiran. Ang pagbawas sa haba ng tunnel ay kaugnay ng mga akumulasyon ng sediments dahil mababawasan ang mga sediments na madadala mula sa mga komunidad sa upstreams hanggang sa downstream.

Technology Selection

Kinonsidera ng proponent ay pagbago ng size ng dam at haba ng tunnel. Mas malaking dam at mas maikling tunnel ang kinonsidera. Ang malaking dam ay may malaking power generation potential ngunit may mas mahal na gastos sa pagbuo at pagmentina.

Resources

Ang Isabela II Electric Cooperative, Inc lamang ang nag-susupply ng kuryente sa Echague. Ang pinagkukunan lang ng tubig ay underground/dug wells at mula sa Ilaguen river. Ang alternatibong mapagkukunan ng raw materials katulad ng buhangin ay mula sa mga katabing munisipyo kung sakaling hindi maaaring makapag-quarry malapit sa project area.

PROJECT PROPONENT

Ang tagataguyod ng proyekto ay ang Rio Norte Hydropower Corporation (RNHC) na may pangunahing opisina na matatagpuan sa 9th Floor 45 San Miguel Building, San Miguel Avenue, Ortigas Center, Pasig City 2242 Don Chino Roces Avenue, Makati City.

PROJECTED TIMEFRAME

Ang tinatayang tagal ng implementasyon ng proyekto ay makikita sa Table sa ibaba.

Table 4. Projected timeframe of the project implementation

Project Activities	2017- 1 st Q of 2021	2 nd to 4 th Q of 2021	2022	2023	2024
Pre-construction					
Construction					
Construction of Temporary facilities					
Weir: Excavation for structure; Gravel Bedding; Top Slab; Fish Pass construction; Riprapping Works; and Sluice Gate					
Penstock: Excavation; Back Fill with Compaction; Slope Protection; Saddle and Anchor Blocks; Formworks; Sand Bedding; and Trifurcation, Fittings, and Accessories					
Powerhouse: Excavation for Structure; Embankment, Grading & Compaction; and Slope Protection					
Operation					

SUMMARY OF MAJOR IMPACTS

Ang impact assessment at environmental management plan ay isinagawa gamit ang assessment ng primary at secondary impact areas. Lahat ng area kung saan itatayo ang mga pasilidad ng proyekto ay tinaguriang direct impact area na mayroong 500 metrong buffer para ma-accomodate ang impact ng proyekto sa kapaligiran. Ang primary impact area ay napapaloob sa 500 metro mula sa project site samantalang ang secondary impact area naman ay napapaloob sa 501 metro hanggang 1000 metro mula sa project site.

Kaalinsabay nito, ang potensyal na impact at mga bahagi ng kapaligiran na posibleng maapektuhan ay komprehensibong sinuri sa bawat bahagi ng proyekto - mula konstruksyon, operasyon, hanggang sa pag alis ng proyekto. Inalam rin ang mga opsyon prevention at *mitigation enhancement* kasama na rin ang kaukulang gastos para dito.

Nalaman batay sa pagsusuri na ang karamihan ng negatibong impact ng proyekto ay aasahan sa panahon ng konstruksyon nito. Kabilang sa mga negatibong impact na ito ay: polusyon ng tubig, hangin, at lupa dahil sa pagkakaroon ng solid at domestic wastes, paglaganap ng alikabok dahil sa clearing, earthwork, at iba pang civil works. Maaapektuhan din ang bahagi ng flora at fauna biodiversity dahil sa mga aktibidad ng konstruksyon tulad ng clearing ng mga puno, at pagkasira ng mga kasalukuyang habitat. Sa phase ng pag alis ng proyekto, maaaring mapataas nito ang soil erosion, sa lower stream ng ilog ng Ilaguen na maaaring makaapekto sa mga komunidad na nasa mababang bahagi ng watershed. Gayunpaman, ang mga positibong epekto ay inaasahan sa phase ng operasyon ng proyekto.

Table 5. Summary of Impact Assessment and Environmental Management Plan

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
I. PRE-CONSTRCUTION PHASE						
Preparation acquisition of permits and clearances.	The People	- Host communities’ fears on the environmental and social impacts of the project due to lack of information and knowledge on the proposed project. - Relocation/ resettlement of affected settlers.	- Conduct of IEC campaign among the people inside and outside the project area. - The people will be informed about the social and environmental issues of the project and the benefits they will derive once the project will commence. - Appropriate compensation and remuneration on the assessed property.	Proponent	Included in the project cost	Project Management Plan
Property compensation negotiations						
II. CONSTRUCTION PHASE						
Earthwork activities and movements of heavy equipment including road construction	The land	Change in surface landform	Provision of green areas, tree planting, putting place of drainage and sewerage system and other activities.	Proponent	Included in the project cost	Tree Planting Plan, ECC conditions

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
		Soil erosion and siltation	Adequate drainage system to accommodate peak runoff that could contaminate the nearby water bodies.	Proponent/ Constructor	Included in the project cost	Drainage Plan
		Contamination of soil from fuel/oil spills	• Proper maintenance and regular inspection of vehicle and construction equipment. • Conducting refueling and maintenance in designated areas. • Maintenance of supply of spill control materials (absorbent materials, absorbent brooms, etc.) in location where construction equipment is maintained and used. • Proper training of workers for spill prevention and containment.			

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
			Minimizing construction activities during wet weather.			
		Soil/land contamination due to improper waste disposal.	- Provide solid waste disposal area. - Implement waste segregation. - Practice good housekeeping.	Constructor/ Worker	Included in the Project Cost	Contract. RA 9003
		<u>Flora and Fauna:</u>		Proponent/ Contractor	Included in the Project Cost	Project Development
		Loss of vegetation cover due to:				
		- Distribution of native fauna species. - Destruction of terrestrial habitats. - Loss of plant associations and their associated fauna.	- Revegetation and enhancement of buffer zone. - Areas identified as special habitat of flora and fauna will be reported to DENR.			

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
	The Water	Water Quality: The effect on water quality due to storm water runoff.	- Maintain 40 meters river easement from water bodies for all construction activities that might increase stormwater runoff or cause erosion or sedimentation. - Avoid construction work during wet and rainy conditions. - Install drainages, canals and sediment ponds around the construction area during rainy days.	Proponent/ Contractor	Included in the Project Cost	Project Management Plan
		The effect on water quality due to contamination of water bodies.	- Proper maintenance and regular inspection of vehicle construction equipment. - Conduct refueling and maintenance in designated areas. - Maintenance of supply of spill control materials (absorbent	Equipment Operator	Included in the Project Cost	ECC Conditions, R.A. 6969

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
			material, absorbent brooms, etc.) in location where construction equipment is maintained and used. • Proper training of workers for spill prevention and containment. • Minimizing construction activities during wet weather. • Provide suitable equipment, facilities and precautions to eliminate discharge of any contaminations to the environment.			
		The effect on water quality due to sewage generation	• Provide temporary toilet facilities ("portalets") among workers. • Proper sanitation and provision of sewerage treatment facility	Proponent	Included in Project Cost	R.A. 9275

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
			within the site during construction. Strictly require the contractor and its workers to observe proper waste disposal and proper sanitation.			
Earthwork activities and movement of heavy equipment including road construction.	Air	<u>Greenhouse Gases:</u> GHG and particulate emissions will be generated from heavy equipment and light duty vehicle exhausts, and energy utilization during construction.	- Covering haulage truck to control dust emissions before traveling on public roads. - Spray water on access roads. - Staging land clearing and heavy construction activities to reduce opportunity if simultaneous operation of large dust-generating equipment. - Enforce speed limits to reduce airborne fugitive dust from the vehicular traffic. - Revegetate disturbed areas as soon as possible after	Contractor	Included in the Project Cost	R.A. 8749

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
			disturbance and maintenance of the vegetation to ensure growth. Remove soil and mud from tires of trucks and equipment before leaving the area.			
			- Maintain heavy equipment and light duty vehicles in good working condition in order to maximize equipment fuel efficiency. - Consider fuel efficiency of equipment and hauling trucks during construction. - Exhaust fumes from the mobile equipment engines will be managed through the use of low sulfur fuel when possible. - Greening program mitigation.	Contractor	Included in the Project Cost	Clean Air act

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
		<u>Noise:</u> Increase noise levels such as noise from vehicle engines, construction and excavation works, mobile equipment, power generation and construction activities.	• Provide silencers and mufflers to minimize noise. • Construction activities should be done during daytime. • Proper maintenance of the equipment and vehicles in order to keep them in good working condition. • Special instruction to drivers and heavy equipment operators to use their engines properly, avoid excessive pumping on the fuel and use of horn. • Planting trees that could serve as sound buffers.	Contractor and Operator	Included in the Project Cost	Noise Standards, ECC Conditions
People	Socio-economic	Loss of livelihood	• Encourage the residence to chart the course of an alternative livelihood program.	Proponent	Include in the Project Cost	Project Development Plan

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
		Generation of employment and influx of migrants.	- Prioritize hiring qualified workers within the barangay and municipality. - Conduct training to upgrade the skills of local residents in order to be qualified in the project.	Proponent	Included in the Project Cost	Labor Code
		Increase business opportunities.	Pay taxes to local government.	Proponent	Tax rates applies	Revenue Code
		<u>Safety risks:</u> Occupational health hazards to workers	- Workers must wear Personal Protective Equipment (PPE). - A Safety Engineer to oversee health hazards over the personnel all throughout the mining operations. A medical practitioner shall be hired for emergency situations. - First aid kit must be made available at all time at the project site.	Proponent	Included in the Project Cost	Project Management and Safety Plan

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
			Install warning signs along accident prone areas.			
		<u>Health Risks:</u> Occurrence of sickness and diseases among workers.	Provide free clinic and medical mission to the local community.			
III. OPERATION PHASE						
	People	Foul odor, health problem and water pollution.	- Maintain sanitation and implement waste management. - A specific site away from any source of water will be designated for waste dumping. Organic waste will be buried in pits while the inorganic wastes will be collected and taken out of the site of possible recycling or disposal to Municipal dumpsite.	Proponent	Included in the Project Cost	Project Management Plan

Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
	The Water	• Increase in pollution concentration downstream (during flushing) • Released water containing low dissolved oxygen. • Fish mortality from turbine passage	• Conduct flushing activity during heavy rains to dilute silt pollution. • Mixing with water downstream would increase dissolved oxygen. • Provide fish barriers in the penstock. • Provide turbine housing with noise suppressors.	Proponent	Include in the Project Cost	Project Management
	Air	• Sonic impact: noise levels may increase.				

IV. ABANDONMENT PHASE

	The Land	Modification of topography in the project area. Removal and dismantling of	Rehabilitate the area. All infrastructures that can be used will be awarded with conformity of both parties.	Proponent	Included in the Project Cost	Project Management
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Project Phase / Environmental Aspect (Project Activity Which Will Likely Impact the Environmental Component)	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
		unnecessary infrastructure.				
	The People	Temporary economic dislocation due to project closure.	Alternative Livelihood	Proponent	Included in the Project Cost	Social Development

PROJECT STAKEHOLDERS

This project is an important electricity generation project. Thus, the engagement of stakeholders from the local and national level is needed to inform and support the project implementation. The identified stakeholders were categorized into two groups, primary and secondary. The primary stakeholders are the main groups to be affected and the main collaborators. The secondary stakeholders are the groups who might have an interest in the project or might benefit from it. The table below shows the categorized stakeholders.

Table 6. Project Stakeholders

Primary Stakeholders	Secondary Stakeholders
Local communities around the proposed project site and its sub-villages	Universities and educational institutes
Vulnerable groups such as women, children, elders, etc.	Industry and business
Residents	NGOs and civil society
Concerned People's Organization	Contractors
Concerned NGOs	Press and Media
Department of Energy	
Department of Environment and Natural Resources	
National Renewable Energy Board	
LGUs (municipal and barangay levels) of San Miguel, Echague, Isabela and neighboring barangays	
Environmental Management Bureau	

PROJECT PROPONENT'S STATEMENT OF COMMITMENT AND CAPABILITY

Statement of Commitment of the Proponent

Nakatuon ang Proponent na ipatupad ang mga kinakailangang hakbang upang maiwasan ang masamang negatibong epekto sa pre-konstruksyon, konstruksyon, operasyon, at pag-abandona ng proyekto ng 19.7 MW Ilaguen River Hydro Electric Power Plant na proyekto. Ipinapakita ng mga susunod na seksyon ang kakayahan ng Proponent na magpatupad ng pagsubaybay at mitigasyon sa mga aktibidades.

Environmental Monitoring Plan (EMP)

Ang monitoring program ay naglalayon na makamit ang sumusunod: 1) masubaybayan ang pagsunod ng proyekto sa mga kondisyong nakasaad sa ECC, 2) masubaybayan ang pagsunod sa Environmental Management Plan (EMP) at mga kaukulang batas at regulasyon, 3) masubaybayan ang mga ispesipikong parameters na natukoy para sa proyekto, at 4) magbigay basehan para sa epektibong pagpapalano at pangangasiwa ng mga environmental measures sa pamamagitan ng pagbabantay sa mga aktwal na impact ng proyekto at pagkukumpara nito sa mga inasahang impact batay sa EIS.

Magbubuo ng isang Multipartite Monitoring Team (MMT) na ang pangunahing layunin ay masusing masubaybayan ang pagsunod ng proponent ng proyekto sa ECC na iginawad ng DENR. Ang team ay bubuuhin ng mga kinatawan ng iba't ibang ahensya ng pamahalaan, lokal na pamahalaan na may hurisdiksyon sa area ng proyekto, mga tribal council, akademya, mga accredited na NGOs, at ng Rio Norte Hydropower Corporation. Ito ay mabubuo sa bisa ng isang Memorandum of Agreement (MOA) na nakapaloob ang mga mayoryang stakeholders kasama ang Environmental Monitoring Fund (EMF) na syang popondo sa operasyon ng MMT. Ang komite ay regular na magtatagpo upang mapalano ang schedule ng trabaho at makapag koordinasyon sa mga ahensya ng pamahalaan, lokal na pamahalaan, mga tribal council, akademya at mga NGO/POs.

- a) Ang proponent ay magtatayo, operate, at mintina ng isang Environmental Management Office (EMO) para sa Ilaguen River (Site 3) Hydropower Project ng

Rio Norte Hydropower Corporation Watershed and Management Office bilang bahagi ng regular na Magkokoordina ng lahat ng aktibidad ng mga kontraktor, lokal na pamahalaan, at iba pang ahensya at organisasyon na may kinalaman sa pagsunod sa mga probisyon ng ECC para sa proyekto;

- b) Pasimulan at ikoordina ang implementasyon ng EMP nang may koordinasyon sa mga stakeholders, rehiyonal na opsina ng DENR, at maging sa loob ng Project Management structure ng proyekto.
- c) Magsilbing *liaison* sa pagitan ng proponent at ng rehiyonal na opisina ng DENR, gayundin sa mga host na komunidad, lokal na pamahalaan, at mga lider ng mga tribo sa lahat ng pangkapaligiran at pangkaunlarang usapin na may kinalaman sa konstruksyon at operasyon ng proyekto;
- d) Pasimulan ang implementasyon ng Information, Education, and Communications Program, Social Development Program, and Environmental Monitoring Program.

EMF and EGF Commitments

Ang mga sumusunod, kasama ng iba pa, ay mga garantiya sa patuloy na implementasyon ng EMP:

- Ang commitment ng RIONORTE na umaksyon sa mga environmental impact and mitigation measures na nakapaloob sa EMP.
- Pagpapaloob ng environmental mitigation/enhancement measures sa mga kontrata ng mga kontratista sa konstruksyon.
- Ang pagpirma sa MOA na nagbubuo ng MMT, EMF, at ng EG.

FURTHER INFORMATION

Para sa karagandang kaalaman, ang kopya ng Environmental Impact Statement ay maaring makuha sa Environmental Impact Assessment and Management Division of the Environmental Management Bureau (EIMD-EMB) website at EMB Central Office sa Diliman, Quezon City.