



5-Year Social Development and Management Program

ATN AGGREGATES PROJECT

For

Mineral Processing Permit (MPP)

ATN HOLDINGS INC.



March 2020

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SUMMARY

This First Phase 5-Year Social Development and Management Program (5YSDMP) is prepared in support of the application for Mineral Processing Permit (MPP) of ATN Holdings Inc. The project, hereinafter referred to as the **ATN Aggregates Project (AAP)** is located in Barangay Macabud, Municipality of Rodriguez, Province of Rizal specifically centered at the intersection of geographic coordinates 14 degrees 47 minutes and 02 seconds North Latitude and 121 degrees 08 minutes and 28 seconds East Longitude.. The project site can be reached via the Marikina-San Mateo Road, passing through Cubao or Sumulong Highway. Another route is via Fairview passing through the Commonwealth Avenue-Litex-Payatatas road. From Rodriguez proper, the site is approximately 3 kilometers away.

Under the pertinent provisions of DAO 2010-21, all Permit Holders shall prepare an SDMP, in consultation and in partnership with the host and neighboring communities. The SDMP shall be actively promoted and shall cover and include all Programs Projects and Activities (PPA) towards enhancing the development of the host and neighboring communities. To achieve this, the project proponent shall allot annually a minimum of one and a half percent (1.50%) of the operating costs necessary to implement the SDMP. There are three main components of the SDMP PPA that shall:

- assist in the development of the host and neighboring communities to promote the general welfare of the inhabitants living therein;
- develop a program for the advancement of mining technology and geosciences to build up resources and mineral discoveries, improve operational efficiency and resource recovery, and enhance environmental protection and mine safety; and
- develop and institutionalize an Information, Education and Communication (IEC) Program for greater public awareness and understanding of responsible mining and geosciences.

Through this SDMP, ATN aims to institutionalize the primary mechanism in sharing the benefits derived from the utilization of natural resource to the host and neighboring communities through a concrete and meaningful socially-oriented program. In general, the primary objective of ATN is to improve the overall condition (social, economic, environmental, and cultural) of the *host* communities, as well as the

neighboring communities through this SDMP, that would eventually lead to a self-sustaining community.

The SDMP aims to achieve the following for the next five years:

- a. Assist in the organization and strengthening of social structures that will lead to the enhancement of existing and development of knowledge, values, and skill in support of sustainable community development.
- b. Establish/improve people-oriented livelihood activities for sustainable host and neighboring communities.
- c. Build infrastructures relevant to community needs to boost socio-economic activities.
- d. Provide educational support programs for better access to education and improve the quality of education.
- e. Facilitate and enhance the delivery of health and nutrition services and improve sanitation.
- f. Empower communities and strengthen cultural structures and provide venues to promote cultural enrichment and socio-cultural undertakings.

ATN conducted an SDMP consultation meetings and Social Impact Assessment (SIA). SIA is an applied social science research aimed at identifying and analyzing intended and unintended social consequences of the project, both positive and negative, of planned interventions and social change processes such as policies, programs, and projects.

The projected 5-Year Operating Cost of ATN Aggregates Project based on the Feasibility Study is PhP559.466 million assuming the projected production volume is consistently achieved as programmed in the FS. This translates to a 5-year SDMP fund of is PhP8.392 million of which 75% shall be allotted for the Development of Host and Neighboring Communities (DHNC), 15% for the Information Education and Communication (IEC) Program and 10% shall be utilized for the program of Development of Mine Technology and Geosciences (DMTG).

Table 1. Projected 5-Year SDMP Budget

Year	Projected Operating Cost	1.5% of Operating Cost	75% of 1.5% (DHNC)	15% of 1.5% (IEC)	10% of 1.5% (DMTG)
1	72,000,000.00	1,080,000.00	810,000.00	162,000.00	108,000.00
2	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
3	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
4	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
5	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
Total	559,466,666.64	8,392,000.00	6,294,000.00	1,258,800.00	839,200.00

The first Annual Social development and Management Program (ASDMP) fund shall be based on the estimated Operating Costs stipulated in the approved initial 5-Year SDMP and based on FS. Succeeding ASDMPs will be funded based on the previous year's actual Operating Costs. A sworn statement on the previous year's Operating Costs will be submitted to the MGB Region IV-A immediately upon realization but will not exceed the prescribed period of sixty (60) calendar days after the end of each year.

1.0 INTRODUCTION

1.1 Project Background

1.1.1 Project Name, Address of Contractor and Contact Person

Project Name:	ATN Aggregates Project
Nature of Project:	Crushing Plant Project
Proposed Annual Crushing Rate:	2.4 million tons
Commodity:	Aggregates
Location of crushing plant:	Brgy. Macabud, Rodriguez, Rizal
Permit:	Mineral Processing Permit
Total Project Area:	5.0 hectares
Company Name:	ATN Holdings Inc.
Address:	9th Floor, Summit One Tower 530 Shaw Boulevard Mandaluyong City Email Address:
Contact Persons:	Paul B. Saria, Vice President
Contact Details:	(032) 404-1239/404-2596 09178839330
Email Address:	atnsolar.team@gmail.com atnsolar@tbgi.net.ph

1.1.2 Project Description

1.1.2.1 Location and Accessibility

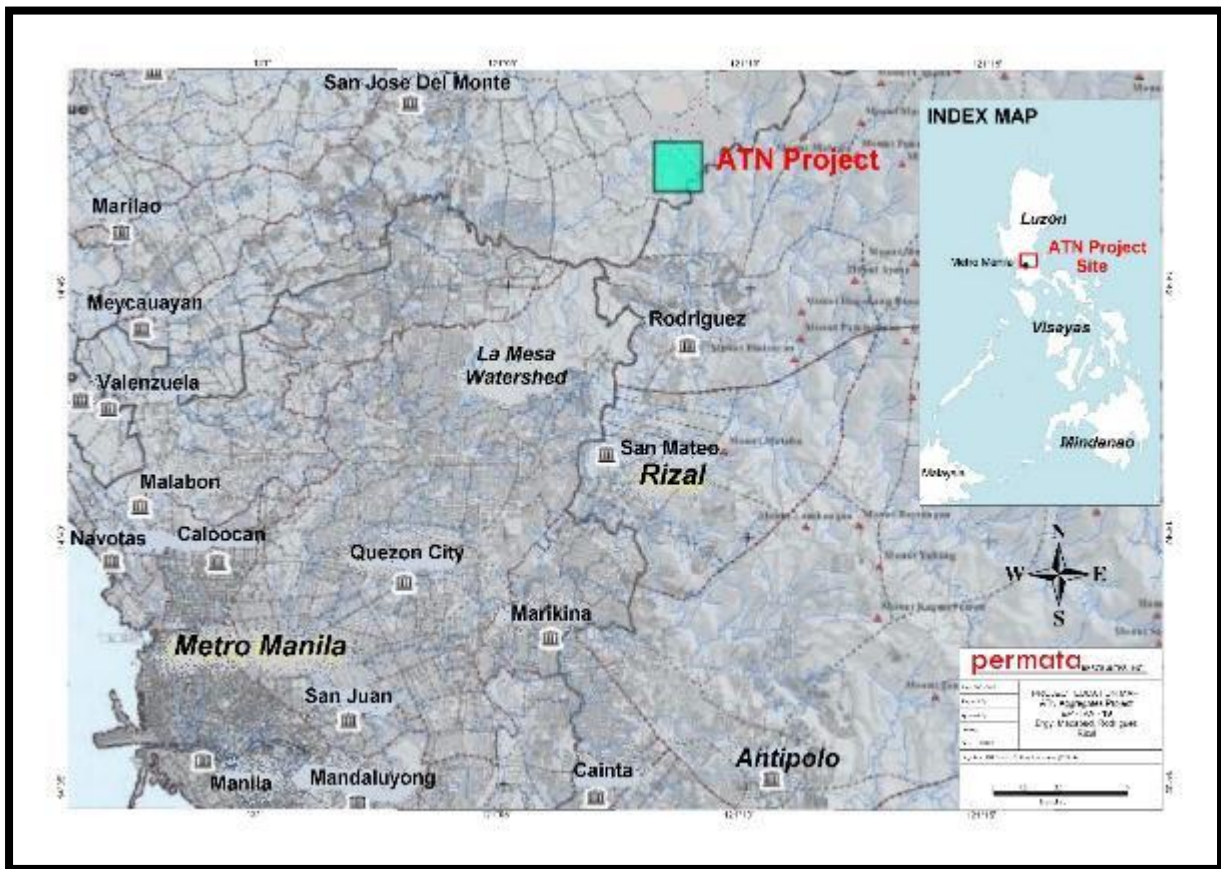
ATN Holdings, Inc. applies for MPP for its crushing plant located in Barangay Macabud, Municipality of Rodriguez, Province of Rizal. The project site can be reached via the Marikina-San Mateo Road passing through Cubao or Sumulong Highway while the other route is via Fairview passing through the Commonwealth Avenue-Litex-Payatas road. From Rodriguez proper the site is approximately 5 kilometers away.

Geographically, the plant site is inside the private titled property of the project proponent and centered at the intersection of 14 degrees 47 minutes and 02 seconds North Latitude and 121 degrees 08 minutes and 28 seconds East Longitude.

Figure 1. Location Map



Figure 2. Vicinity map



1.1.2.2 Project Rationale

With industrialization and continuous quest for development, the project is foreseen to aid in augmenting the higher demand for rock aggregates and cement raw materials by the construction industry for the infrastructure development and the government's prioritized infrastructure projects such as irrigation, mass transport, power supply, school buildings, transport terminals, concrete roads, bridges and airport and harbor facilities.

Aside from revenues generated from taxes and fees, it would also provide additional jobs to the communities and promote the emergence of other income-generating activities relative to the economic activity produced by the Project. These, consequently, would result in the reduction of poverty in the area and contribute to the national wealth.

1.1.2.3 Project Alternatives

Mining projects are site specific because mineral extraction can only be undertaken where economic deposits occur. Given such, ATN Holdings, Inc. has not considered any alternative project site.

1.1.2.4 Project Component List

Major Components

a. Crushing Plant

Crushing plant with rated capacity of 500 tph , shall be installed to process the excess materials from the land development project. Two-stage crushing will be employed using the primary jaw crusher and secondary cone crusher. These crushed raw aggregates materials shall be stockpiled and eventually be transported to companies/area where it will be utilized for construction purposes.

b. Haul and Access Roads

Haul and access roads that will be developed in the project site shall follow the topographic surface contour and shall be ballasted with crushed bedrocks extracted from the land development. Maximum adverse road gradient is 6.0%.

c. Stockpile and dumps

The company will maintain stockpile for raw materials adjacent the crushing plant. Likewise a stockpile area for aggregates products shall be maintained nearby.

Support Facilities

a. Office Building

The office building shall be the headquarters of the project managers. It will hold the offices of the Resident Manager, the MEPEO, CRO and Safety and Health, and all other office personnel.

b. Housing Facilities and Bunk Houses

No housing facility will be constructed inside the project site.

c. Security Outposts and Security Facilities

Security outposts shall be constructed in strategic locations to maintain security and control of ingress/egress of vehicles, materials and personnel to and from the site. A guard and security facilities shall also be established for the security personnel of the project.

d. Mechanical Repair Workshops, Inventory Warehouse, and Fuel Depot

A mechanical repair workshop shall be established to cater the repairs and maintenance of mechanical equipment. A warehouse for critical parts and fast-moving supplies shall also be erected.

e. Nursery Area

A nursery area shall be established to support the rehabilitation activities of the Project.

Pollution Control Facilities

a. Sedimentation Ponds/Settling Ponds

Settling ponds will be constructed in series. These ponds shall be appropriately designed to effectively arrest the silt coming from the crushing plant site to meet the required water quality of the recycled water and effluent standards in case of water discharge.

Utilities

a. Power Supply

Power supply at the project area will be sourced from MERALCO.

b. Water Supply

Rizal has an existing waterworks system (Manila Water Company, Inc.). Aside from this, deep wells and springs present are also sources of water in the area.

c. Fuel

Major fuel distributors like Shell and Petron service the needs at Rizal. Most of these fuel distributors are accessible would be able to cater the needs of the company's fuel and oil requirements for its operation.

1.1.2.5 Project Phases

Pre-Construction Phase

- Planning of technical design and finalization of plans and construction method for the installation of the plant and facilities;
- Soil investigation prior to civil works; and
- Securing of necessary permits.

Construction Phase

Construction phase involves the following:

- Hiring of qualified manpower required to complement the workers in the construction works. Hiring of qualified local residents will be prioritized at this stage. Company guidelines and policies on hiring will be imposed;
- Site clearing, leveling and stripping;
- Access road development;
- Establishment of drainage;
- Construction of settling pond, office buildings, housing and other facilities.

Operation Phase

The crushing plant operation shall be as follows:

Table: Projected operational parameters		
1. Parameters and Assumptions		
Working hours (plant)	20	hours
Working hours (mining)	18	hours
Ave. working days per month	28	days
Ave. working days per year	336	days
2. Plant Capacity		
Plant Crushing Rate	500	tons/ hour
Plant Availability	95%	
Plant Utilization	75%	
3. Plant Production		
Daily Plant Production (Aggregate)	7,253	tons
Monthly Plant Production (Aggregate)	203,081	tons
Yearly Plant Production (Aggregate)	2,436,973	tons

Project Closure and Final Plant Rehabilitation

Upon exhaustion of materials for processing site rehabilitation and decommissioning works shall immediately be implemented.

A Final Plant Rehabilitation and Decommissioning Plan (FPRDP) shall be prepared and submitted to the Mines and Geosciences Bureau (MGB) for review and approval. Among the plans to be considered are appropriate rehabilitation and decommissioning plans that will be suited for the next land use of the site.

1.1.2.6 Key Environmental Aspects, Wastes, Issues, Built-In Measures

Relative to the operationalization of the planned Project, the following are the possible impacts of the activities and the proposed mitigating measures:

Activity	Impact(s)	Management/Mitigating Measures
Construction		
Environment		
1. Clearing, leveling, contouring of the crushing plant site & facilities	-Increase in dust generation - Noise generation	-Regular water spraying -Establishment of buffer zones - Implementation of EPEP
2. Vehicle traffic	-Dust and noise generation	-Regular maintenance of vehicles and provision of mufflers
Safety		
3. All activities relative to installation and site preparation (i.e. clearing, grubbing)	-Noise and dust generation	-Provision of appropriate Personal Protective Equipment (PPE) -Implementation of SHP
Social		
4. All activities; hiring of additional personnel	-In-migration	-Prioritization for hiring qualified personnel from the host communities
	-Disruption in the community	-Restriction of hours of activity -Implementation of the EPEP
Operation		
Environment		
5. Crushing plant operation and maintenance	-Siltation of river system(s)	-Installation and maintenance of water pollution control facilities -Implementation of EPEP
	-Increase in dust generation	-Regular water spraying -Establishment of buffer zones -Implementation of EPEP
	-Noise generation	-Use of mufflers on equipment and ear muffs for workers. -Implementation of EPEP
6. Various activities in the office/administration building	-Generation of solid wastes	-Establishment of a Materials Recovery Facility -Implementation of proper solid waste disposal -Installation of septic tanks -Implementation of EPEP

7. Vehicle traffic	-Dust and noise generation	-Regular maintenance of vehicles -Provision of mufflers -Provision of canvass covers over materials being hauled -Implementation of EPEP
	-Traffic congestion	-Implementation of Traffic Management Plan
Safety		
8. All activities	-Noise and dust generation -Workplace hazards	-Provision of appropriate PPE -Implementation of the SHP
Social		
9. All activities; hiring of additional personnel	-In-migration	-Prioritization for hiring qualified personnel from the host communities -Implementation of the SDMP
	-Health impacts (i.e. due to dust, air pollutants)	-Proper and strict implementation of established environmental activities -Implementation of the SDMP
Project Closure and Final Rehabilitation		
Environment		
10. Rehabilitation of the project site	-Failure of rehabilitation measures (i.e. revegetation)	-Implementation of the FPRDP and rehabilitation closure criteria
11. Dismantling of facilities	-Dust and noise generation -Siltation -Contamination of soil (i.e. oil from motorpool)	-Regular water spraying -Proper disposal of hazardous materials -Maintenance of water pollution control facilities -Implementation of the FPRDP
Safety		
12. All activities	-Noise and dust generation -Workplace hazards	-Provision of appropriate PPEs -Implementation of the SHP
Social		
13. All activities	-Economic and social collapse of the host communities	-Proper implementation of SDMP -Implementation of the FPRDP

1.1.2.7 Project Cost and Duration

Based on the Feasibility Study, life of mine is not applicable. It is projected that the operating cost for the first five years is PhP 559.466 million. Under the IRR, a minimum of 1.5% of the projected 5-Year Operating Cost of ATN Aggregates Project, shall be allotted for the initial 5-Year SDMP which is equivalent to PhP8.392 million.

1.2 Overview of the SDMP

1.2.1 Rationale

The project in Barangay Macabud, Rodriguez, Rizal open various opportunities, the creation of sustainable wealth and improvement on the quality of life for the impacted community within and adjacent to the mining operations. Based on the Philippine Mining Act of 1995 and its revised implementing Rules and Regulations (IRR), specifically DENR Administrative Order (DAO) 2010-21 that supersedes previous issuances: DAO- 2009-99 and 2005-54, mandates the implementation of SDMP in every mining operations to prevent previous incidence wherein the communities were left unprepared for the impact of mine closure.

Under the IRR, all mining companies in the operating stage shall develop and implement a SDMP, and its implementation shall be supported by a fund equivalent to a minimum of 1.5% of the Annual Operating Cost. The SDMP shall be developed in consultation and partnership with the host communities within the area subject of active mining activities and may include Program, Projects, and Activities (P/P/As) identified per section 135 and 136 hereof.

The 5-Year SDMP will cover and implemented in Barangay Macabud, the lone community that will be affected by the project. The 75% of the 1.5% projected Operating Cost would be allocated for physical development projects for the host barangay. The remaining 15% and 10% of the 1.5% of Operating costs will be apportioned for IEC Activities and DMTG, respectively.

1.2.2 Goals and Objective

Through this SDMP, ATN aims to institutionalize the primary mechanism in sharing the benefits of a non-metallic mining operation to the host and neighboring communities through a concrete and meaningful socially-oriented program. Specifically, the program aims to contribute directly to the improvement of the living conditions of residents within the host and affected communities, empower the barangay into the self-supporting community through livelihood programs and maintain the harmonious relationship between the company and the community.

In general, the primary objective of ATN is to improve the overall condition (social, economic, environmental, and cultural) of the host communities, as well as the neighboring communities through this SDMP, that would eventually lead to a self-sustaining community.

The SDMP aims to achieve the following for the next five years:

- a. Assist in the organization and strengthening of social structures that will lead to the enhancement of existing and development of knowledge, values, and skill in support of sustainable community development.
- b. Establish/improve people-oriented livelihood activities for sustainable host and neighboring communities.
- c. Build infrastructures relevant to community needs to boost socio-economic activities.
- d. Provide educational support programs for better access to education and improve the quality of education.
- e. Facilitate and enhance the delivery of health and nutrition services and improve sanitation.
- f. Empower communities and strengthen cultural structures and provide venues to promote cultural enrichment and socio-cultural undertakings.

1.2.3 SDMP Methodology

ATN conducted an SDMP consultation meetings and Social Impact Assessment (SIA). SIA is an applied social science research aimed at identifying and analyzing intended and unintended social consequences, both positive and negative, of planned interventions and social change processes such as policies, programs, and projects. Through this approach, an assessment of the current socio-economic status of the host barangay, pressing issues, and concerns were determine and utilize as a basis for priority community development projects that can be funded and implemented through the SDMP.

Secondary data were also gathered to have an assessment of the general conditions of the covered barangay with a focus on the demographics, socio-economic, cultural, and environmental aspects.

On November 23, 2019, an SDMP consultation the representative of Barangay Macabud Council and community representatives was facilitated to provide them with the information about the SDMP and discuss its benefits and impact to communities.

On November 18-23, 2019, a survey about the issues and concerns in relation to health, livelihood, education, socio-cultural, trainings and infrastructure was conducted. The objective of the survey is to assess its current conditions and identify priority projects that can be funded by the 5-Year SDMP. The result of the survey was also utilized for the SIA.

1.2.3.1 SDMP Consultation

Primary data gathering was accomplished through a Focus Group Discussions with the representative of Macabud Barangay Council and community representatives to gather primary data and issues and concerns. The documentation and photos of the SDMP consultation is included in the SIA document. However, the participants in the meeting did not signed the attendance sheet as requested by Honorable Councilor Renie T. Nedusa. According to him, he wants to avoid issues that might be raised by the constituents and fellow council members once they signed the attendance sheet. Their decision was respected by ATN representatives.

1.2.3.2 Social Impact Assessment (SIA)

SIA is an applied social science research aimed at identifying and analyzing intended and unintended social consequences, both positive and negative, of planned interventions and social change processes such as policies, programs, and projects. It can be considered as "all social and cultural consequences to human populations of any public or private actions that alter how people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of the society."

The objective of SIA is to assess the impact of the proposed projects towards socio-economic development of the host barangay as a whole; and identify and document lessons learned and draw up recommendations.

SIA was conducted from November to December 2019 in Barangay Macabud using the following methods:

- Review of secondary data;
- SDMP Consultation;
- Review of the proposed ATN Aggregates Project; and
- SDMP survey to generate information on the impact of the project for the concerned community to determine the current situation of the community and to solicit suggestions.

The results of the SIA served as a reference in the identification of priority projects under the first phase of 5-Year SDMP of the company. (Annex 8.7)

1.2.4 Process and Approval

An approved 5-Year SDMP is required prior to commencement of the implementation of the Project. ATN prepared this SDMP in consultation and in partnership with the host community within the area of the proposed project. It shall be submitted to the MGB Regional Office IV-A for approval. Within five (5) days upon receipt thereof, the Regional Office concerned shall conduct an evaluation of the submitted programs as to its form, substance, and completeness. Additional documents or information which are deemed necessary to supplement the programs may be required by the Regional Office concerned.

The MGB Region IV-A Office will conduct an evaluation of the submitted programs as to its form, substance, and completeness. Additional documents or information which are deemed necessary to supplement the programs may be required by the reviewers.

Ideally, a technical conference shall be held among the Contractor/Permit Holder/Lessee, Regional Office concerned and appropriate experts for the final evaluation of the programs. During the technical conference, the Contractor/Permit Holder/Lessee shall present the highlights of its programs, while the Regional Office concerned and the concerned experts shall present their comments on the submitted programs. If the proposed programs conform to the standards, these shall be duly approved by the Regional Office concerned through the issuance of a Certificate of Approval. The Regional Office shall provide the Bureau with a copy each of the approved SDMP and Programs on the DMTG and on IEC, and the Certificates of Approval, within seven (7) days upon approval.

Within thirty (30) days from the approval of the SDMP, the Contractor/ Permit Holder/Lessee shall enter into a Memorandum of Agreement (MOA) with the host and neighboring communities as represented by the Barangay(s)/Municipality(ies) concerned and shall register the same in the Regional Office concerned, to ensure the implementation of the various P/P/As.

1.0 SITE PROFILE

1.1 Geographical Location

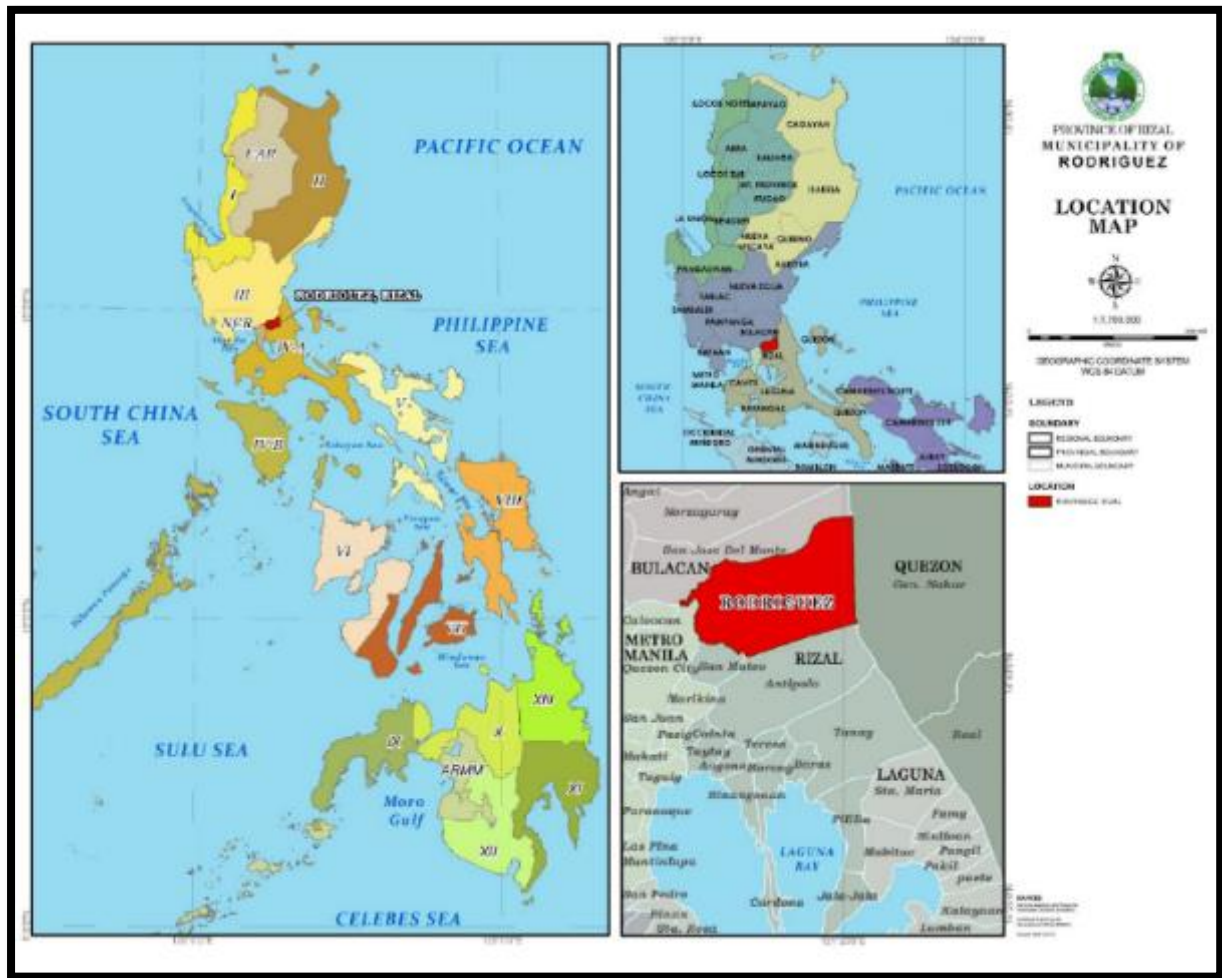
Municipality of Rodriguez is situated in the northernmost part of Rizal Province and within the fringes of Metro Manila. Situated at the foot of the Sierra Madre Mountains with a total of 36,307.31 hectares or 363.07 km², it is one of the largest municipalities in Rizal Province in terms of land area. More than 40% (12,620.90 hectares) of the Upper Marikina River Basin and Protective Landscape (UMRBPL) is part of the municipality. It is bounded on the West by Quezon City and Caloocan City; on the North by San Jose del Monte City, Bulacan; on the East by the Municipality of General Nakar, Quezon and by Antipolo City and San Mateo, Rizal on the South.

Barangay Macabud which is the host barangay of the project is located in the northernmost part of Rodriguez and bounded in the north by Norzagaray, Bulacan, in the west by San Jose Del Monte, Bulacan; Pangarap, Caloocan City and Quezon City and in the south by Barangay San Jose of Rodriguez . Barangay Macabud has a total land area of 1,886 hectares representing 5.19% of the total municipal land area.

Table 2. Land Area of Rodriguez by Barangay

BARANGAY	AREA (hectares)	% DISTRIBUTION
Balite	53.88	0.15%
Burgos	276.00	0.76%
Geronimo	36.75	0.10%
Macabud	1,886.00	5.19%
Manggahan	117.44	0.32%
Mascap	7,576.41	20.87%
Rosario	25.17	0.07%
San Isidro	3,792.00	10.44%
San Jose	1,045.28	2.88%
San Rafael	6,061.45	16.69%
Total	36,308.07	100.00%

Figure 3. Location of Map of Rodriguez Rizal



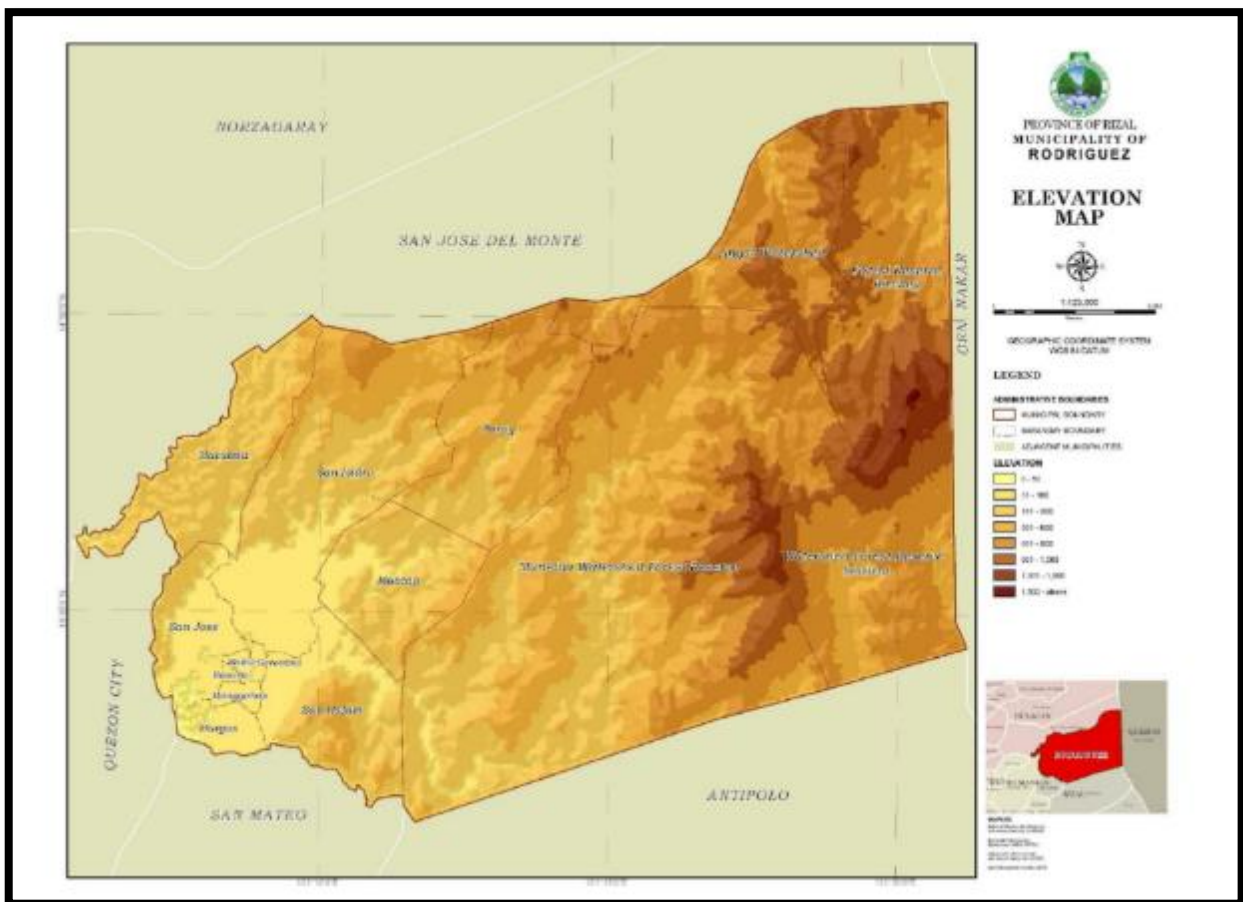
1.2 Physiography - Slope, elevation and terrain characteristics, etc.

The topography of Rodriguez is generally rugged and mountainous. Its central and eastern sections are dissected by a series of steep ridges and highlands, extending from north to south that includes Barangay Macabud. The rough topography is characterized by a series of volcanic, metamorphic and dioritic hills. Elevations of more than 1,000 meters can be found in the northeastern part of the municipality. Mt. Irid, the highest peak is at 1,469 MASL.

The low lying areas are found mostly on the western side of the municipality ranging from 10 to 30 meters above sea level (MASL), formed by natural alluvial depositions of rivers and waterways. From here, elevation is increasing going to the east direction. Strips of flatlands can also be found on riversides where the slope varies from 0–3%. The ‘poblacion’ is situated at approximately 41.16 MASL.

Rodriguez has at least 31 peaks topped by Mt. Irid as the highest peak at 1,469 meters, ASL. The other mountain peaks, with their corresponding measurements, above sea level, are: Mt Pamitinan (330 m; 1,081 ft); Rizal Peak (725 m; 2,377 ft); Mt. Parawagan (475 meters), Mt. Binicayan (1,001 ft; 305 m) , Mt Ayaas (567 m; 1,859 ft), Mt Limila (886 ft / 270 m); Mt Caypipili (1,661 ft ; 507 m), Mt. Lucutan (849 ft / 259); Mt. Danes (918 meters), Mt. Macatohuol (1,369 meters); Mt Palagyo (1,251 meters), Mt. Matulid (1,074 meters), Mt. Maymasibi (901 meters; 2154 ft), Mt. Minalunad (628 meters), Mt Cabaun (1,797 ft / 548 m); Mt Magalisian (1,748 ft / 533 m); Mt Macabinauan (1,627 ft / 496 m); Mt. Haponang Baboy (1,514 ft / 462 m) ; Mt Panas (1,461 ft / 446 m), Mt Malagia (1,203 ft / 367 m); Mt. Payacin 865 ft / 264 m); Mt. Malac (548m), Mt Batay (1320 m), Mt. Cayadlas, Mt Mamasan, Mt Calumpog, Mt Masola, Mt Masarat, Mt. Batabas, and Mt. Cacanado.

Figure 4. Elevation Map



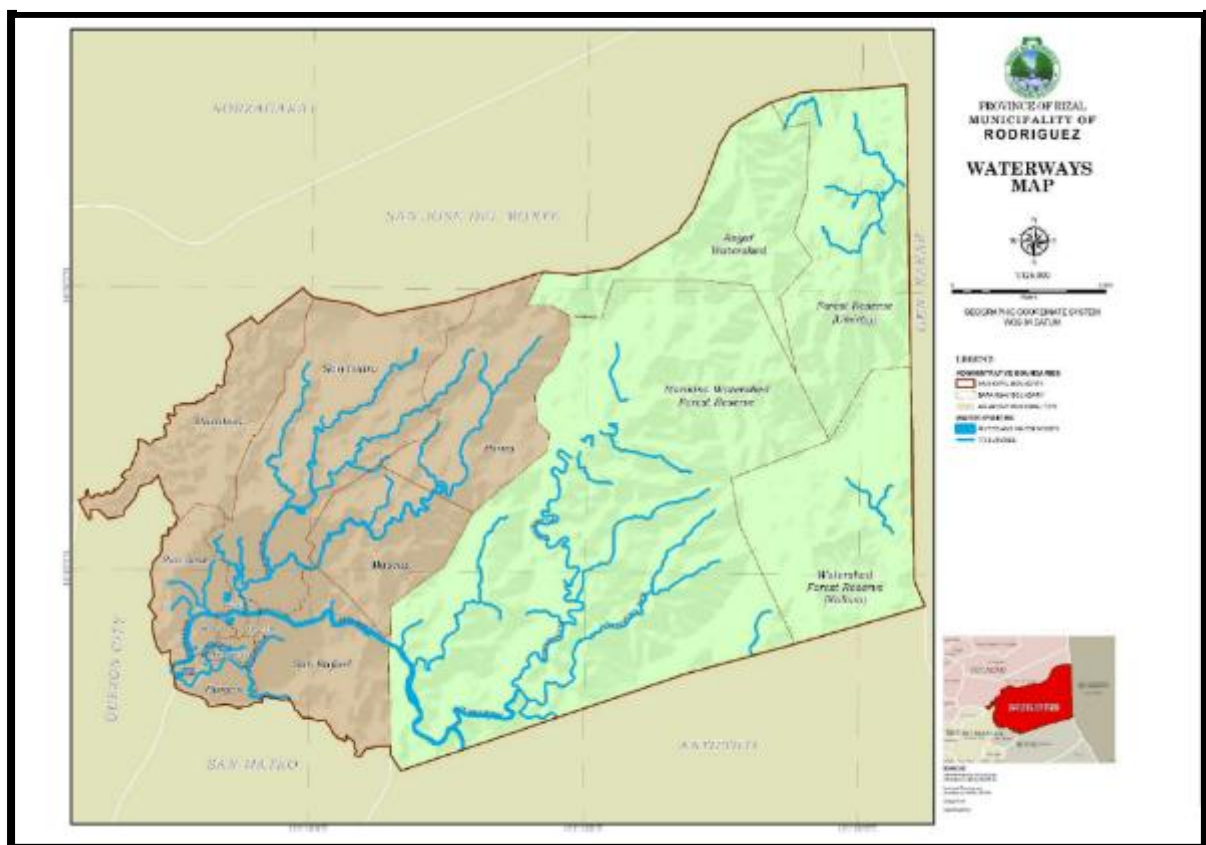
1.3 Natural Drainage System

The municipality's highlands are drained by rivers and their tributaries which have a combined length of 397.23 km, excluding those of small streams and creeks. They generally flow from the northeastern to the southwestern part. The northern portions are drained by Puray River, Montalban River, Wawa River, Lucutan River, and Tanag River. In the southern portions, water is discharged through Burgos River and Maly River, which are then joined by Mango River.

Wawa River is famous than the other rivers that are found in the municipality because a dam was built on it. The dam, called Wawa Dam, can be a potential source of potable water for residents of Rizal and Metro Manila.

All these rivers converge on an even larger channel, the Marikina River. This is the biggest waterway in the entire province of Rizal. Other smaller waterways, such as Anginan Creek and Laan Creek also drain into this river. By the way, Marikina River traverses the territories of Rodriguez, San Mateo, and Marikina City in southward

Figure 5. Waterways Map



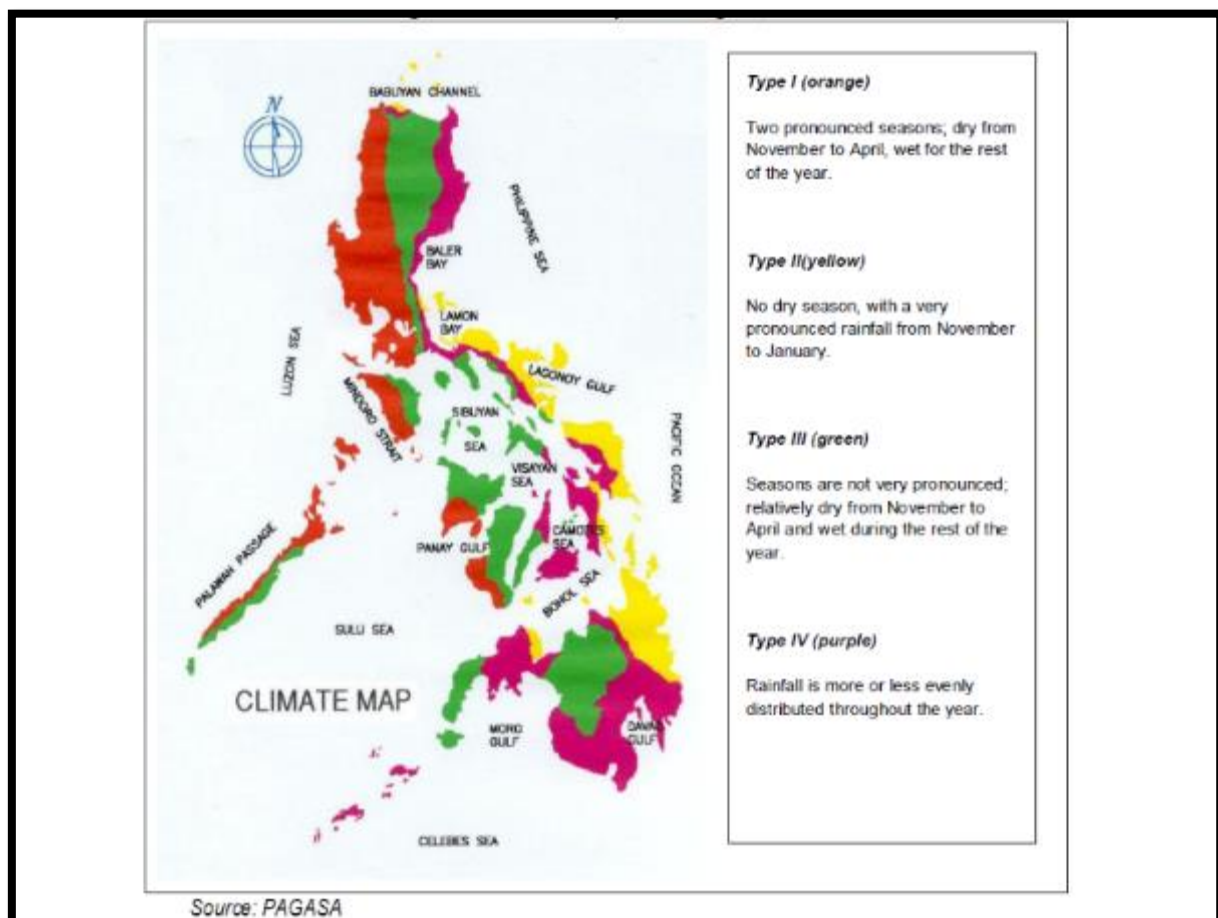
direction until it joins Pasig River at Napindan point. Both Marikina River and Pasig River eventually drain into Manila Bay.

1.4 Climate Type

Rodriguez's climatic type falls under Type I in the Corona Classification System of DOST-PAGASA. This climate is characterized by a distinct but brief dry season from December to April during which the area receives less than 60 mm of precipitation.

The local climate is dominated by monsoon circulations which cause seasonal variations in precipitation. In particular, January and February receive only 23mm and 15mm of precipitation, respectively. The 'low-sun' characteristic of this period produces hot and dry conditions. This dryness is compensated by heavy rains and excessive moisture from June to October also called the 'high sun' period, during which the area receives more than 200 mm of rainfall per month or more than 40% of the average rainfall in other parts of the country.

Figure 6. Climate Map



1.5 Rainfall Pattern

Total annual precipitation averages 2,471 millimetres per year from around 151 rainy days. July, August and September are the rainiest months with a spike in rainfall in the vicinity of 500 mm per month. The heavy rains which fall during this time of the year are enhanced by the southwest monsoon (Habagat). Thunderstorms, lightning, and other effects of Inter-tropical Convergence Zone (ITCZ) are frequent occurrences during this time.

Wind patterns are influenced by the southwest (Habagat) and the northeast (Amihan) monsoons. The most frequent wind direction is north-easterly because of the influence of the northeast monsoon. Winds are not quite strong. The annual average wind speed is only 2 meters per second (or approximately 7.2 kph) and up to four knots. The strongest winds occur in April and May each year.

Because of its latitudinal location, the sun is almost always directly overhead in Rodriguez at noontime for much of the year. The town consequently receives enormous concentration of solar energy which is responsible for high temperatures all year-round, averaging above 27° degrees Celsius. The mean temperature changes with rising elevation by about 0.5°C per 100 meters increase in elevation.

From October to March, relatively colder conditions are experienced, with the average monthly temperature dropping below 27° degrees Celsius as a combined effect of the northeast monsoon and the cold Siberian winds.

2.0 GENERAL DESCRIPTION OF ENVIRONMENTAL/SOCIO-ECONOMIC AND CULTURAL CONDITIONS

2.1 Environmental Conditions

2.1.1 Land-use Pattern

Significant changes in Rodriguez' land use and growth patterns are caused by the considerable growth of real estate developments in the last two decades coupled with the housing programs of the national government for the relocation of informal settlers from various sites of Metro Manila from 1980 to the present. The operation of sanitary landfills, establishment of agro-industrial businesses, and the continued mining and quarrying activities in the municipality also affect the distribution of land uses.

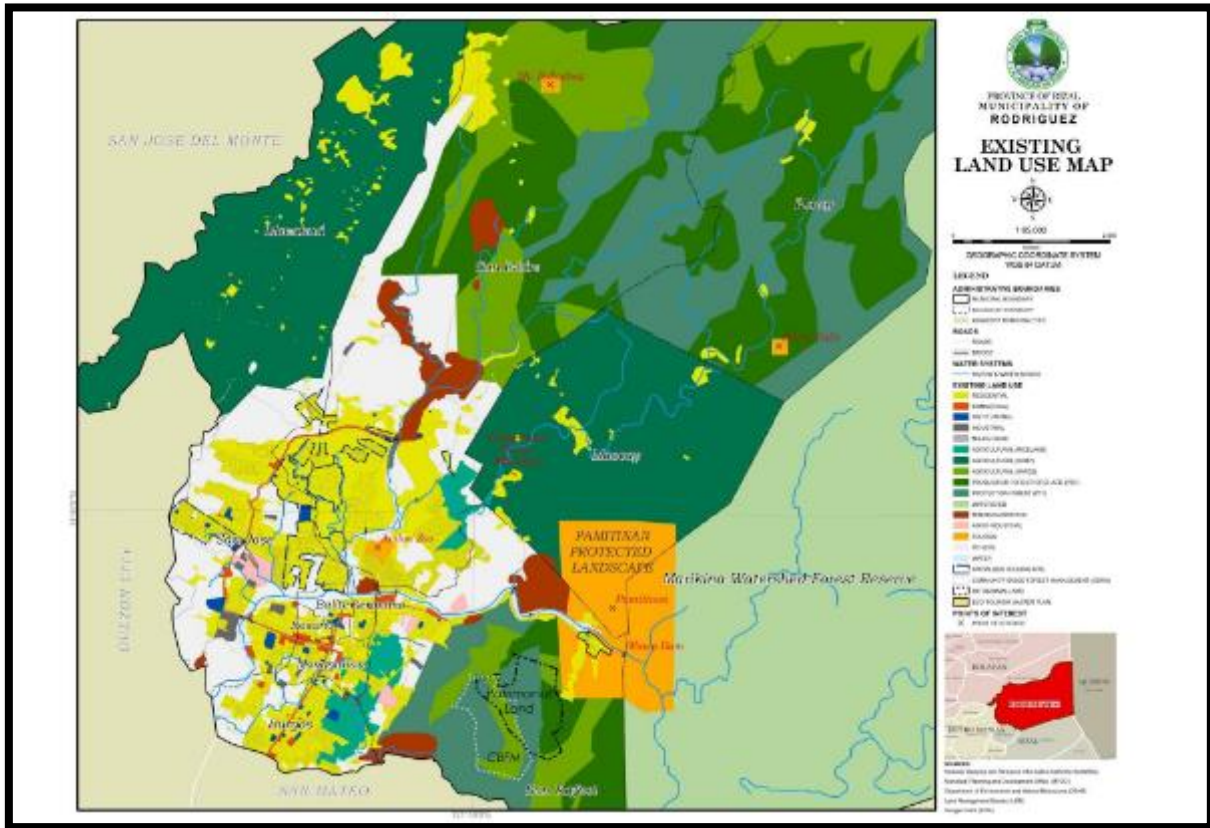
With 36, 307.31 hectares of total land territory, the general classification of lands in the municipality are forestland (75.04%), agricultural (9.31%), built-up (5.13%), agro-industrial (0.13%), mining and quarrying (0.84%), tourism (1.67%) among other uses. The Marikina Watershed takes up a substantial portion of the municipality's land area with 22, 693.32 hectares or 62.50% inclusive to the forestland area.

As shown in the table and map below, all lands with a slope of 0% to 18% in Rodriguez combine for 8,300 hectares. Based on slope, elevation, landform, soil quality, and geology, previous CLUP documents identified only 6,211 hectares in Rodriguez as 'developable' or fit for human settlement. The rest of the territory was deemed suitable for conservation in its original state as 'forestland' primarily due to ecologic constraints such as steep slopes, unsuitable soils, geologic hazards, difficult access, etc.

Table 3. General Land Use in Rodriguez Rizal

Category	Total Land Area (ha)	Distributed Land Area (ha)	Percentage (%)
Forestland	27,243.87		75.04
Watershed		22,693.32	
Agricultural Land	3,3381.34		9.31
CARP		1,432.37	
SAFDZ		1,549.96	
Rice Land		399.02	
Built-Up Areas	1,862.76		5.13
Commercial		66.59	
Industrial		38.04	
Institutional		39.76	
Major Road		22.40	
Residential		1,696	
Others	2,790.78		7.69
Cemetery		17.95	
Landfill		33.02	
Agro-Industrial	45.81		0.13
Mining/Quarrying	304.13		0.84
Tourism	606.49		1.67
Water	72.12		0.20
TOTAL	36,307.31		100.00

Figure 7. Land Use Map



The Bureau of Soil and Water Management (BSWM) used the morphological approach to classify the soil types in Rodriguez into appropriate soil mapping units. Based on its classification, the general soil types in Rodriguez are Antipolo clay, Antipolo soils (undifferentiated), Binangonan clay, Marikina clay loam, Marikina loam, Marikina silt loam, Novaliches clay loam, Novaliches loam, and Quiangua silt loam.

2.1.2 Availability and Source of Water Supply

The municipality is currently sourcing its water supply from Angat Dam. However, due to the insufficiency of water supply for Metro Manila, there was a strong clamor to reuse the Wawa Dam. The dam and surrounding area are currently protected as part of the Pamitinan Protected Landscape. The Wawa Dam in Rizal province is the most feasible and immediate water source for Metro Manila in the event of a water crisis, according to a firm that owns the rights to the Wawa river system. Wawa Dam (also known as Montalban Dam) is a gravity dam constructed over the Marikina River in the municipality of Rodriguez in Rizal province, Philippines. The slightly arched dam is situated in the 360-meter (1,180 ft) high Montalban Gorge or Wawa Gorge, a water

gap in the Sierra Madre Mountains, and east of Manila. It was built in 1909 during the American colonial era to provide the water needs for Manila. It used to be the only source of water for Manila until Angat Dam was built and Wawa was abandoned in 1968.

2.1.3 Natural Calamities and Disasters

Three (3) major natural land use hazards are identified in Rodriguez, these are flooding, landslide (erosion), and fault. Flooding covers a combined area of 1, 049.76 hectares with 966.32 hectares and 83.44 hectares covering “high” and “low to moderate” flood risks respectively. Fault hazards cover a total of 27.42 and landslide or erosion hazards combined for a hefty 20, 684.83 hectares. Table below summarizes the total area per Barangay Affected by the Various Hazards in Rodriguez.

PHILVOCS reported active faults along the fringes of Marikina Valley. This Valley Fault System is composed of two major northeast-trending faults. The East Valley Fault extends as far as north of Barangay San Rafael, Gloria Vista Subdivision, eastern San Mateo Northwest of Antipolo until down south just north of Marvihills Subdivision and Modesta Village, stretching for at least 8 kilometers. The West Valley fault extends approximately 23 kilometers from lower Barangay Macabud in the north down near ULTRA in Pasig City.

Table 4. Total Area of Barangay Affected by Various Hazards

Barangay	Hazard						Total
	Fault	Flood		Landslide			
	Within 5m buffer	High	Low to Moderate	High	Moderate	Low	
Balite		38.06				18.47	56.53
Burgos	0.06	161.39	1.22	7.83	2.98	180.29	353.78
Geronimo		27.22				21.92	49.14
Macabud	5.09			538.94	87.36	1,280.61	1,912.00
Manggahan		39.86				69.81	109.67
Mascap	4.09			1,290.80	3.17	350.79	1,648.86
Puray	6.84			2,501.50		27.06	2,535.41
Rosario		13.04				14.21	27.25
San Isidro	2.65	327.83	9.21	2,752.71	246.50	655.69	3,994.60
San Jose	4.10	236.59	73.01	98.20	374.39	217.36	1,003.65
San Rafael	4.59	82.94		1,379.24	116.65	156.26	1,739.48
Watershed		39.39		8,168	123.77		8,331.48
Total	27.42	966.32	83.44	16,737.54	954.82	2,992.47	21,761.85

2.2 Socio-Economic Conditions

2.2.1 Demographic Information

2.2.1.1 Historical Growth of Population

Rodriguez has a steady growth of population. National Statistics Office (NSO) census in Table 6 revealed that in the last two years, the municipality had an average growth rate of more than twice that of the province. The contrasting population growth rates of Rodriguez at these years against the trends in the broader context can be attributed to the large influx of migrants during the same periods. Based on PSA 2015 Census, Barangay Macabud has a total population of 9,707.

Sharp increases in population size of the municipality, as reflected in Table 6 is a result of the national government's guided relocation of informal settlers from Metro Manila which started in the 1990s. The migration due to relocation intensified between 1995 and 2000 largely in Barangay San Jose and Barangay San Isidro between 2004 and 2007 and still continues up to the present. These tremendous inflows of migrants transformed the character of Rodriguez from rural to urban.

Table 5. Population Distribution by Barangay

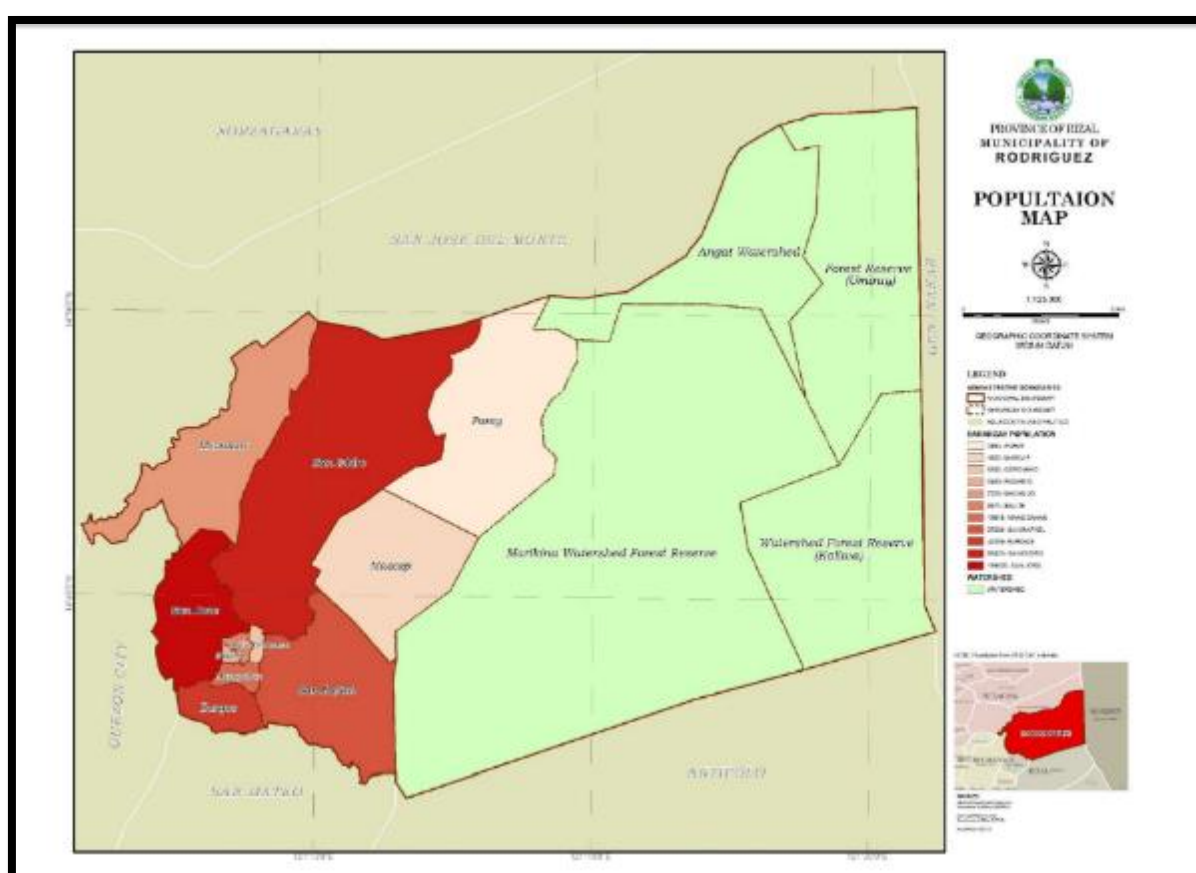
Barangay	Census Year					
	1990	1995	2000	2007	2010	2015
Balite (Pob.)	6,182	6,943	7,849	8,827	9,114	9,983
Burgos	15,483	19,536	25,146	34,032	38,554	44,100
Geronimo	3,365	3,830	4,584	4,450	5,417	5,554
Macabud	2,021	2,327	3,124	6,338	6,605	9,707
Manggahan	5,862	7,031	8,220	11,170	12,557	13,913
Mascap	1,645	2,056	2,089	4,293	4,425	4,699
Puray	1,311	1,746	1,772	2,937	2,941	3,921
Rosario	3,530	4,109	4,558	5,414	5,881	7,244
San Isidro	1,905	2,178	2,618	28,614	62,114	117,277
San Jose	15,222	17,627	40,372	93,567	108,586	124,868
San Rafael	10,548	12,285	14,835	23,952	24,710	27,956
Total	67,074	79,669	115,167	223,594	280,904	369,222

Table 6. Land Distribution by Barangay

Barangay	Land Area (ha)	Land Distribution (%)	2015 Population
Balite	53.88	0.15%	9,983
Burgos	276.00	0.76%	44,100
Geronimo	36.75	0.10%	5,554

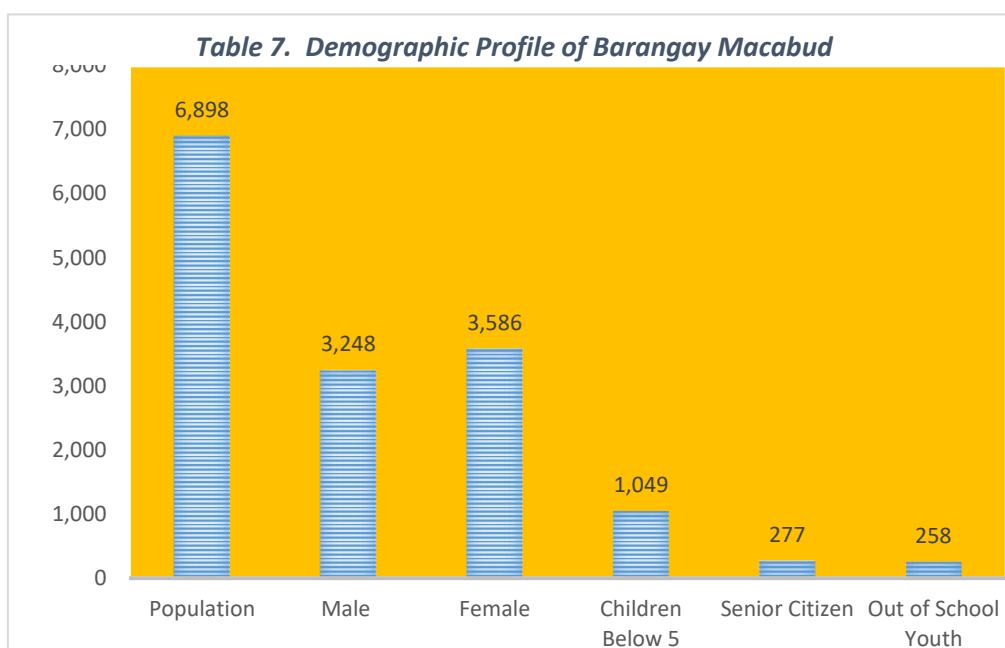
Macabud	1,886.00	5.19%	9,707
Manggahan	117.44	0.32%	13,913
Mascap	7,576.41	20.87%	4,699
Puray	15,437.70	42.52%	3,921
Rosario	25.17	0.07%	7,244
San Isidro	3,792.00	10.44%	117,277
San Jose	1,045.28	2.88%	124,898
San Rafael	6,061.45	16.70%	27,956

Figure 8. Population Map



2.2.1.2 Demography of Barangay Macabud

In the 2011 barangay census, Macabud recorded a population of 6,898 from 1,454 households. Majority of the population is female (51%) with the rest being male (49%). Children below 5 years of age represented 15.21% while senior citizens were only 4.02% of the population. The Out of School Youth population represented 4.02%. The barangay had a total of registered voters numbering 3,871. Figure 2 presents the demographic profile of Barangay Macabud.



3.2.1.3 Age – Sex Structure

NSO Census 2007 has revealed that, based on age-sex structure, Rodriguez has a relatively young population. Young dependents with ages 0-14 years comprise 36% of the total population while economically-productive individuals with ages 15-64 comprise 61.42% of the total population. Those who are retirable or past retirement age comprise only 2.66% of the total population.

The sex ratio approaches almost-perfect parity at 1.025 men to 1 woman. Men slightly outnumber women in most age brackets up to 54 years of age. From 54 years onwards, women outnumber men and tend to live longer.

Reproductive-age females of 15-49 years combined for 26.66% of the total population in 2010, with a fertility rate of 2.34 births per woman, a modest figure compared to the country's average of 3.75 births per woman.

Elementary school-going population in 2010 at a 90% participation rate comprised 16% of the total population, or 35,318 children requiring 883 classrooms. For high school education at 80% participation rate, age-groups combined for a total of 17,481 students requiring 437 classrooms.

Those with ages 18 years and above, male and female, and eligible to register for 2010 elections regardless of literacy or illiteracy, comprised about 43% of total population, or 127,469 individuals. Per COMELEC figures, there were 139,304 registered voters in 2010.

2.2.1.4 Working-Age Population According to Literacy and Educational Attainment

Literacy, defined as nominal literacy or simple ability to read and write (vs functional literacy and numeracy), is generally high in Rodriguez at 97.94% of working-age population 15 years and above. In urban barangays, the literacy rate is 98% while in rural barangays the literacy rate is 3% lower at 95%.

In terms of formal education in the year 2007, more than 70% of the population was still enrolling or finishing basic education. The running figure of the academic degree holders in the municipality was low at 8.25%.

Those without high school diploma need to be targeted by informal education and non-formal education programs to equip them to be competitive within the labor force. Without such interventions, these so-called dropouts would not even qualify for TESDA skills training which requires completion of high school education.

2.2.1.5 Education

Rodriguez has 37 elementary (28 public & 9 private) schools and 24 high (15 public & 9 private) schools, all are under the supervision of the Department of Education (DepEd) schools district. It also has 5 tertiary schools under the control of the Commission on Higher Education (CHED). These are the Pamantasan ng Montalban, University of Rizal System (URS-Rodriguez), St. Joseph's College of Quezon City (Montalban Campus), Asian Institute of Computer Studies (AICS) and Froebellian College of Science and Technology. The private sector's share in the provision of basic education is noteworthy for the upper-income families. Public schools cater mostly to middle-income and lower-income families.

Teacher-student ratio is 1:48 and 1:59 in Rodriguez District I and II respectively. The ideal teacher-student ratio in elementary education is 1:30 (Azim Premji Foundation, 2010).

In Barangay Macabud, education is accessible to the community. There is one public elementary school, one public high school and one private school (Saint Joseph Christian Academy). There are day care centers in Sitio Karahume, Sitio Licao-Licao, Sitio Harangan and Sitio Laan that caters to children below six years of age.

2.2.2 Income sources

Agriculture is the main source of income in the municipality. Noted agricultural produce in the municipality are root crops: cassava and sweet potato; fruit vegetable crops like tomato, squash, ampalaya, pole 'sitao', eggplant, okra and radish; and leafy vegetables like pechay, mustasa, sili, alugbati and camote tops.

Rice farming has declined from 573 hectares in 1983 to 349 hectares in 2007. The town has been short of rice supply at 13,313 metric tons in 1983 to approximately 34,000 metric tons in 2012. In 1998, only 86 farmers own the land that they till, 902 farmers are beneficiaries of the agrarian reform program and still paying for their farms, 263 farmers are on tenancy basis, and the rest are landless farmworkers. Other agricultural production in 2012 included a variety of fruits, root crops, coconuts, coffee/cacao and rubber. Of these, banana has the highest combined areas at 33.5 hectares.

Agriculture has considerably declined -- in terms of the area being cultivated, output, and labor share since the 1990s with the rise of quarrying, and the hauling and waste-disposal activities brought about by the operation of the municipality's sanitary landfill.

Other sources of income in Rodriguez where people are employed are Tourism, Mining and Quarrying, Manufacturing, Trade, Commerce and other services.

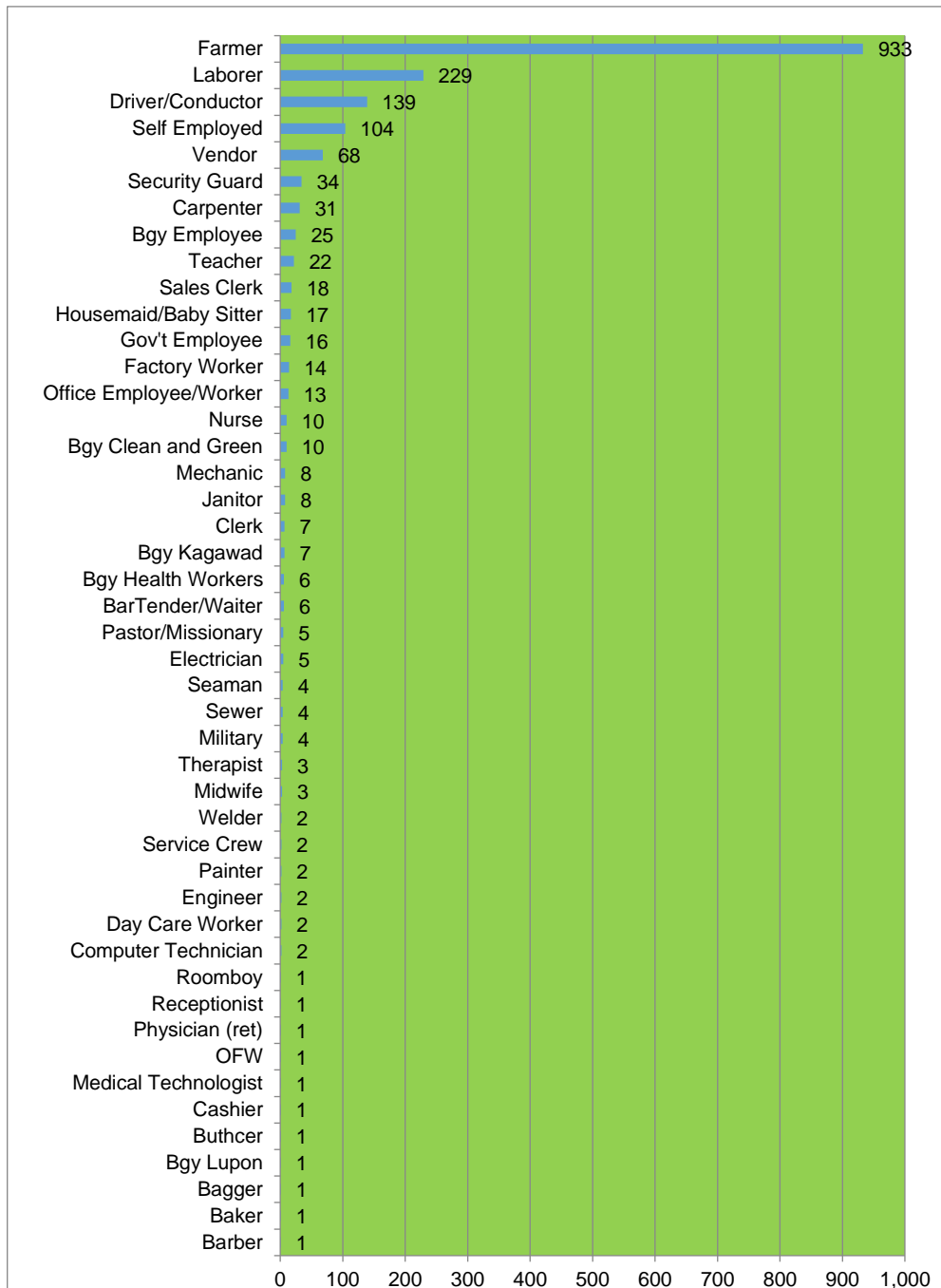
Barangay Macabud is considered an agricultural community with land under the Comprehensive Zoning Ordinance of Rodriguez. The top five occupations in Macabud are farmers (52.5%), laborer (12.89%), driver/conductor (7.83%), self-employed

(5.86%), and vendor (3.83%). The rest, around 11%, are engaged in various employment/occupations. However, more than 1,500 of the total population are unemployed.

2.2.3 Labor availability and distribution

Farming is the main source of income in the Barangay Macabud while laborers, drivers/conductors follows. Other labor availability and distribution in the barangay is illustrated in the table below.

Table 8. Distribution of Labor, Barangay Macabud



2.2.4 Transport, market and credit facilities

Rodriguez is strategically located in relation to NCR, Central Luzon, and Calabarzon. It is accessible to most parts via national highways and provincial roads. Public utility buses, jeepneys, and FX vans regularly ply the routes to Antipolo City, Marikina City, San Mateo, Sta. Lucia Grand Mall in Cainta, and Cubao Quezon City via Marcos Highway. Registered public transport vehicles total of 1,444 units. A previous provincial report counted 14,433 privately-owned vehicles of different kinds. On any given day, there could be around 4,500 vehicles of all sorts circulating or contributing to traffic volume in the town center. The Rodriguez Highway-San Jose-Quezon City national road had a computed average daily traffic of 10,145 vehicles in 1998.

In 2012, the Transport and Traffic Management Office (TTRAMO) of the municipality has registered a total number of 7,284 units. The registered vehicles were sorted, as follows: public utility jeepneys, 1,110 units; AUV/FX service, 217 units; tricycles with franchise, 2,653 units; and private tricycles, 3,304 units. TTRAMO also registered a total of 52 associations that operate the public transport vehicles. There are 27 associations for public utility jeepneys, 6 associations for AUV/FX service and 19 associations for the tricycles with franchise. It is noticeable that the total number of private and tricycles with franchise is 5,957 units.

A large number of tricycles for short-distance trips (1,631 units in 3 barangays of the urban district alone) and the popularity of private motorbikes among motorists have combined to cause traffic congestion in the urban core. This is principal because there are few traffic regulators, there is a lack of parking space, and roadside parking in commercial areas has always been tolerated.

The municipal market serves as the major buyer of local products. Barangays have also their own flea market or talipapa where a small volume of produce was sold.

Rodriguez has several banks and lending institutions which serve to stimulate the local capital formation and mobilization of savings for investment. These financial institutions include Bank of the Philippine Islands, BPI Family Savings Bank, RCBC Savings Bank, Inc., Banco de Oro, Premiere Development Bank, Rural Bank of Montalban, Inc., Builders SLA Inc., Philippine Savings Bank, Allied Bank, Bank of

Makati, and the eleven (11) lending/financing investment companies and ten (10) cooperatives that are established in the area. Joining them is the growing money remittance industry like M Lhuillier, Cebuana Lhuillier, Smart Padala, Globe G-Cash, Western Union, Palawan Express and LBC Padala.

3.6 Cooperatives and other organizations

Below is the table showing the notable organization in Barangay Macabud and its functions.

Table 9. List of Local Organizations

ORGANIZATION	FUNCTION
Pantawid Pamilyang Pilipino Program (4Ps)	It is a human development measure of the national government that provides conditional cash grants to the poorest of the poor to improve the health, nutrition, and education of children aged 0-18.
Farmer's Association	Facilitate the integration of farmers into markets, improvement of quality of life, and promoting sustainable fishing practices.
Senior Citizens	This group aimed at organizing the elderly to identify their needs, welfare, and rights especially on health.
Women's Organization	Ensure the full integration of women for economic, social and cultural development at the municipal and barangay level.
Tricycle Operators and Drivers Association	One of their primary objectives of TODA is to provide programs such as livelihood, assistance on the issuance of franchise and others. The regular meeting was also scheduled for the monitoring of the activities of Macabud TODA.

3.2.5 Access, Control and Land Ownership

Land ownership in Barangay Macabud is through titling while others are renting or covered by Comprehensive Agrarian Reform Program (CARP). CARP is the redistribution of private and public agricultural lands to help the beneficiaries survive as small independent farmers, regardless of the "tenurial" arrangement. Its goals are

to provide landowners equality in terms of income and opportunities, empower land owner beneficiaries to have equitable land ownership, enhance agricultural production and productivity, provide employment to more agricultural workers, and put an end to conflicts regarding land ownership.

3.2.6 Social Services and Support Programs

3.2.6.1 Social Welfare Services

Social welfare services have been devolved to LGUs by RA 7160. The Municipal Social Welfare and Development Office carries out the following programs using locally-generated resources:

- Community Organizing and Sustainable Livelihood
- Operation of Day Care Centers
- Supplemental nutrition for malnourished children
- Disability Prevention & Integration Program for Persons with Disability
- Center for Senior Citizens
- Welfare Programs for women, youth, youth offenders, drug and substance abusers, etc.
- Parent Effectiveness, Pre-marriage Counselling, similar programs

To alleviate indigence given the high poverty incidence of the population, MSWDO focuses its services on the bottom 30% of households. Selected households in Socialized Housing Sites and upland tribal areas are covered by the 4Ps program.

Since the Social Reform Agenda of 1992, DSWD has provided start-up capital to livelihood projects intended to alleviate poverty of disadvantaged groups, a program that has evolved through the decades under different labels, namely; Self-Employment Assistance Program (1981-1997), CIDSS (1995-2001), KALAHI-CIDSS Convergence (2001-2004), Conditional Cash Transfer (2007-2010), and Pantawid Pamilyang Pilipino Program 4-Ps (2010-2016).

3.2.6.2 Sports and Recreation

The municipality has two (2) major public recreational facilities excluding play courts inside schools, institutions, and private compounds. The municipal plaza measures 2, 060 square meters and has been converted into a roofed multi-purpose center that

functions alternately as an auditorium, social hall, or as covered basketball court. Another major public facility is located in Brgy. San Jose measuring 4.04 hectares. For cockfighting enthusiasts, the Montariza cockpit remains to be functional.

There are 15 public play courts for basketball and volleyball that also function as open venues for community gatherings and social affairs.

3.2.6.4 Relocation Housing Projects

Relocation of informal settlers from NCR to Montalban has been done in ‘waves’ starting in the 1990s. Between 2007 and 2010, National Housing Authority (NHA) had resettled 9,000 households, mostly from the riversides of Pasig River, from Sta. Ana Manila; 4,832 from various parts of Quezon City; 1,538 households from East Triangle and Botanical Area, Brgy Central, Quezon City. After that, there were 3,158 families relocated from North Triangle Quezon City. After the prolonged Habagat torrential rains on July 29-August 9, 2012, 8,968 more families were relocated to Southville, Brgy San Isidro.

The recurrent problem in national-government-initiated relocation has been the lack of prior coordination with the Municipal Government of Rodriguez and inadequate social and physical preparation of receiving barangays.

3.2.6.5 Day Care Centers

All barangays have daycare centers as mandated by Republic Act 6972, “An Act Establishing a Day Care Center in Every Barangay, Instituting Therein a Total Development and Protection of Children Program, Appropriating Funds Therefor, and For Other Purposes”. These centers are supervised by the Municipal Social Welfare and Development Office.

3.2.6.6 Health Care and Facilities

The primary health care system has been established in Rodriguez. This includes one (1) 25-bed infirmary (Montalban infirmary), one (1) rural health unit office, and a health center for each of the eleven (11) barangays. In addition, there are private medical treatment centers, dental clinics, laboratories, as well as lying-in maternity centers. Pharmacies are present to serve people’s medicinal needs (See Figure 4.4 Health Institutions Map).

The Casimiro Ynares Memorial Medical Center is a higher-level public health facility soon to open along F. Rodriguez St., Villa Ana Maria, Barangay San Jose. It seeks to improve and modernize the various public health services of the municipality.

The Rodriguez Rural Health Unit (RHU) headed by the MHO has two physicians who are assisted by two nurses, eleven midwives, 2 malaria officers, one sanitary inspector, and paramedics. Midwives supervise the barangay health stations which are generally staffed by barangay health workers (BHW) to whom 'trained hilots' report. Municipal dental services are limited, having only one official dentist based in the Municipal Health Unit office for the whole town. Supplementing government's health services are the following private facilities with highly trained and specialist personnel:

- HVIII Hospital, 20 hospital beds;
- Marcelo J. Pascua Hospital, 10 hospital beds;
- St. Mark Hospital; and
- San Jose Maternity and Lying-in Hospital.

Maternal and Child Care. In the 2012 municipal health report, 5,500 were administered with BCG; 17,269 with DPT (1, 2, and 3); 17,764 with OPV; and 10,731 HB (1, 2, 3). It also successfully delivered a total of 3,697 live births; 1,849 of whom were males and 1,848 were females.

Leading Morbidity. In 2012, animal bite cases topped the Annual Morbidity Report. The other leading causes of morbidity are respiratory in nature. Cases of respiratory infection in the upper tract, lower tract, as well as influenza, add up to thousands per year. This trend might be related to dust pollution emanating from quarrying sites, water pollution in the Montalban River, as well as olfactory or odor pollution from illegal waste dumping practices. Following the cluster of respiratory diseases are gastrointestinal disorders including diarrhea which may be traced to the safety and potability of water consumed by households.

Other diseases are also recorded like leprosy with 4 cases, 1 case of Schistosomiasis and 1,863 cases of TB Symptomatic who underwent DSSM.

3.2 Cultural Conditions

3.2.1 History of the area

'Montalban' is originally a name of a town in Toledo, Spain established in the 1490s. It is said to be a Spanish contraction of the words, "Monte Alba" or "white mountain." The name also alludes to Alban Hills ("Monte Albano") in Lazio, Italy where popes and Roman nobles built historic castles.

Montalban, Rizal' was established in 1871 during the Spanish rule by Padre Eustaquio, a native of Pasig. Montalban was carved out of the town of San Mateo to combine four barrios, namely, Balite, Burgos, Maran, and Calipahan. "Balite" served as first town center; it was called so after the 'balete' or strangler fig trees that grew abundantly on the banks of Montalban River. Later, a chapel or 'Pasong Vista' was erected on the present location where the Catholic Church and cemetery stand. The legend of Bernardo Carpio, explaining the topography of the place, was popular during this time. The legend of 'nag-uumpugang bato' tells the story of a giant trapped between two mountains that he had to push apart, thus creating a gorge or canyon, where Montalban's famous river now flows through.

During the Philippine Revolution against the Spanish colonial regime, Montalban produced numerous patriots such as Licerio Geronimo, Simplicio Inocentes, Gregorio Cruz, Martin Cruz, Victoriano Bautista, Hilario Cruz, among others, who identified themselves with the revolutionary movement. The town's Catholic Church served as some kind of fort. Revolutionaries established a hideout in the caves of 'Puray' which was visited at different times by Supremo Andres Bonifacio and General Emilio Aguinaldo until the camp was attacked by Spanish forces and reduced to ashes in 1897.

Filipino patriots sustained their fervour for national independence during the Philippine-American War of 1889-1901. Revolutionaries dealt a heavy blow to the Americans when "General Sergio" Licerio Geronimo killed US General Henry Lawton in battle along the river in Bagong Silangan. The Americans retaliated and eventually defeated the Filipinos. Thereafter, the town of Montalban was returned to the jurisdiction of the town of San Mateo in 1903. It took another leader, Don Eulogio Rodriguez Sr., to work towards reclaiming the status of Montalban as a separate

municipality in 1909. Rodriguez Sr served as 'Presidente' of the town until 1916. During this time, the barangays of Burgos, San Jose, San Rafael, San Isidro, Geronimo, Balite and Manggahan became part of Montalban. When World War II raged in 1941-1945, the Japanese bombed the town in 1941 and occupied it in 1944. The Rodriguez Sr family was then among the most prominent of the town. Their members were arrested by Japanese soldiers and imprisoned in Fort Santiago. Some members offered the supreme sacrifice of their lives.

On July 26, 1982, by virtue of Batas Pambansa Blg. 275, Montalban was renamed Rodriguez in honor of Don Eulogio Rodriguez Sr., in grateful recognition of his pioneering efforts and example of public service.

3.2.2 Migration and ethnic groupings

The sharp increases or leaps in population size of the municipality, as reflected in Table 3.2 were recorded as a result of the national government's guided relocation of informal settlers from Metro Manila beginning in the 1990s. The migration of those who were relocated intensified between 1995 and 2000 mainly in Barangay San Jose. Such population movement still continues up to the present day.

Also, a second barangay, San Isidro, experienced a separate inflow of migrants between 2004 and 2007, which continues up to now. Thus, it helped change the character of Rodriguez from rural to urban.

In Barangay Macabud people are composed of different sub-groups such as Tagalog, Bisaya, Muslim and Dumagats (Indigenous Peoples). Most of the Dumagats live in Sitio Karahume while Muslims are in Sitio Jovil III and Laan. There are also immigrants from different places in Metro Manila.

3.2.3 Leadership patterns

Following the Philippine System of Governance, the Barangay is the basic political unit and the Barangay Council is the highest governing body within the host mining communities. It is headed by the Punong Barangay, with at least seven regular Sanggunian members, and appointive officers.

3.2.4 Social structures related to decision-making and conflict resolution

According to the Local Government Code of 1996, the Barangay is recognized as the primary planning and implementing unit of government policies, programs, projects, and activities. It is also acknowledged as a forum wherein the collective views of the people may be expressed, crystallized and considered, and where disputes may be amicably settled.

Disputes within the host communities is being settled in the Katarungang Pambarangay through the Lupong Tagapamayapa and Pangkat ng Tagapagkasundo.

3.2.5 Peace and Order

Rodriguez's peace and order are maintained by the Philippine National Police (PNP) with 112 uniformed men and staff stationed at the center of town. PNP has 11 sub-stations and outposts. The policeman-to-population ratio, using the 2010 population stands at 1: 2,508 and is below the ideal 1:1,000 ratio.

Hundreds of police deputies or barangay tanods are considered 'force multipliers' who complement the PNP in providing safety and protection to all residents. Civilian traffic enforcers and volunteers from the town's Public Safety & Order Office (PSOO) also assist and augment the police force.

The average monthly crime rate has increased slightly from 9.01 per month in 2008 to 10.10 per month in 2009. In 2009, Crime Solution Efficiency Rate is at 92% despite the lack of police officers.

The Bureau of Fire Protection (BFP) station of Rodriguez has 16 firemen and trained personnel and 2 fire trucks. The fireman-to-population ratio is 1:17,557, which is way below the ideal ratio of 1:2,000.

4.0 DISCUSSION OF THE RESULTS OF COMMUNITY ASSESSMENT

The first cycle of ATN Aggregates Project 5-Year SDMP formulation needs planning framework and process to become strategic and programmatic. The relatively small amount of SDMP funds may not be enough to establish community development program but rather settle for provisions as additional assistance for existing development programs of the barangay and municipal local government units. It will

require deliberate approach to anchor the SDMP provisions to broader programmatic interventions and initiatives in Barangay Macabud. This can be achieved by involving the barangay and municipal LGU, representatives of different sectors and local organizations in the preparation of annual SDMP.

Based on the data gathered, the priority development projects identified were related to health, livelihood, education, and infrastructure. Respondents in the survey and interviewee during the KII have conveyed their immediate issues, concerns, challenges experienced and their perceived solutions to the various problem.

From the gathered and analyzed data of the SIA, recommendations were presented for ATN Holdings and its partners in the SDMP formulation and management. These were considered in the programming and planning of the 5-Year SDMP.

The project will spur additional economic activities in Barangay Macabud and neighboring communities as a result of project operations. It will generate additional employment and livelihood and increase demand for agro-forestry outputs. With the implementation of the CDP and SDMP, the project will definitely enhance social services in the barangay. It will provide assistance and material support to day care, elementary and high school education. Similar support can be provided to improve infrastructures and health services in the form of additional medicine, equipment and medical and dental mission.

4.1 Community Issues/Problems/Concerns

Based on the secondary data gathered, consultation meeting, key informant interview and the result of ATN social impact assessment, the identified needs and problem of the host barangay are the following:

Category	Community Issues/Challenges Encountered	Perceived Solution
Health	<ul style="list-style-type: none"> • Accessibility of health facility • Not satisfied with the health quality services 	<ul style="list-style-type: none"> • Establish additional health center at remote sitios • Free medicines

	<ul style="list-style-type: none"> • Insufficient supply of medicines • Lack of water source • No existing line from MWSS • Garbage • Existing water sources are far from the residential area • Some springs were already affected by quarry • Dust pollution • Noise pollution 	<ul style="list-style-type: none"> • Free medical consultation • Establishment of hospital • Establishment of potable water source • Feeding program
Livelihood and Employment	<ul style="list-style-type: none"> • Lack of work opportunity • No training for livelihood projects • Livestock pest/virus problem • No financial capital to establish small enterprise business • Job qualification • Loss of farmlots to quarry operation 	<ul style="list-style-type: none"> • Livelihood program • Employment • Capital loan • Establish a cooperative
Education	<ul style="list-style-type: none"> • Elementary and High School location is far from remote sitios • Financial problem • Transportation cost of students from house to school 	<ul style="list-style-type: none"> • Establishment of additional school at remote sitios • Scholarship program • Free education
Infrastructure	<ul style="list-style-type: none"> • Bad road condition • Poor water system • Distance of water source from residential area • No budget for electrification • No budget for establishment of water system 	<ul style="list-style-type: none"> • Road improvement • Electricity • Improve water system

5.0 SDMP DEVELOPMENT FRAMEWORK

5.1 Development Strategies

Based on the IRR, the 5-Year SDMP includes Program for the Development of Host and Neighboring Communities (DHNC), Information, Education, and Communication

(IEC) Program, and Program for the Development of Mining Technology and Geosciences (DMTG).

Based on the results of the SIA, the following principles will guide the company on the implementation of the PPAs in the next five years:

1. Assistance to Enterprise Development and Networking

Livelihood program has to be included in the SDMP. Asset-building is the most probable approach to livelihoods development in the area that will focus on strengthening existing and available assets such as human, social, physical, financial, and public assets to create or facilitate sustainable means of living. To become a self-reliant community, farming skills enhancement and capability building will be conducted to identify suitable farm crops to attain high productivity and improved organizational structure and functions.

The company also has to prioritize employment from the barangay residents.

2. Assistance to Infrastructure Development and Support Services

Assistance through regular road repair and maintenance could be a possible contribution of ATN Aggregates Project's SDMP. Improvement of water system, and proper maintenance of roads will facilitate the mobility of people coming in and out of the barangay as well as the transport of goods and products. It will also result in a perceived sense of safety (equating to a perception of accidents being less likely to happen). It will also lead to immediate relief in terms of mobility and access to safe road networks, and it will accommodate the differentiated safety needs of its users, particularly the PWDs, older persons, women traveling with children, children, and pregnant women.

3. Access to Education and Educational Support Programs

Provisions of assistance to the schools, both elementary and high school, and child development center will contribute to the enhancement of teaching methods and learning experience. The provision of equipment, school supplies, and materials for teachers and the schools will help improve the students' overall schooling experience.

TESDA scholarship could be granted to deserving students from impoverished families for mining-related courses through the development of mining technology and geosciences budget.

4. Enhancement of Delivery of Health and Nutrition Services

These P/P/As are geared toward achieving an overall improvement in the living condition and health of the host and neighboring communities. Development of barangay health centers is considered in the program while the delivery of health services such as; provision of medical supplies and medical equipment will also be conducted in coordination with the barangay health workers.

Improvement and better access to a water source will be made available. The SDMP will improve the quality and supply of water by providing financial assistance to facilitate the development. In the absence of an MWSS water line like in Sitio Laan, the establishment of a water reservoir or water tank would be of help for better access to safe and potable water. The barangay LGU will be tasked to monitor and maintain the facility.

5. Community Empowerment and Enrichment of Cultural, Spiritual and Civic Activities

The promotion of cultural enrichment will be carried out by supporting the implementation of various socio-cultural activities such as; fiesta, sports competition, Christmas celebration, etc. The objective is a boost and improved unity amongst community members. Based on the existing implementing rules and regulations stipulated in the IRR, the 5-Year SDMP includes Program for the Development of Host and Neighboring Communities (DHNC), Information, Education, and Communication (IEC) Program, and Program for the Development of Mining Technology and Geosciences (DMTG).

5.2 Program/Project/Activity Implementation

The overall objective of these P/P/A is to address pressing concerns on the needs of utilities concerning socio-economic activities, access to education, improved access, and delivery of health services and socio-cultural activities.

5.2.1 Fund Source

Under the IRR, a minimum of 1.5% of the projected 5-Year Operating Cost of ATN Aggregates Project, which is Ph559.466 million shall be allotted for the initial 5-Year SDMP. Taking into account the 1.5% of the five year operating cost, the projected budget is equivalent to PhP8.392 million of which 75% of it shall be allotted for the Development of Host and Neighboring Communities (DHNC), 15% for the Information Education and Communication (IEC) Program and 10% shall be utilized for the program of Development of Mine Technology and Geosciences (DMTG).

Table 10. Projected 5-Year SDMP Budget

Year	Projected Operating Cost	1.5% of Operating Cost	75% of 1.5% (DHNC)	15% of 1.5% (IEC)	10% of 1.5% (DMTG)
1	72,000,000.00	1,080,000.00	810,000.00	162,000.00	108,000.00
2	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
3	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
4	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
5	121,866,666.66	1,828,000.00	1,371,000.00	274,200.00	182,800.00
Total	559,466,666.64	8,392,000.00	6,294,000.00	1,258,800.00	839,200.00

The first ASDMP funds will be based on the estimated Operating Costs stipulated in the approved initial 5-Year SDMP and based on FS. Succeeding ASDMPs will be funded based on the previous year's actual Operating Costs. A sworn statement on the previous year's Operating Costs will be submitted to the MGB Region IV-A immediately upon realization but will not exceed the prescribed period of sixty (60) calendar days after the end of each year.

5.2.2 Setting up systems, policies, and procedures

The main features of the existing methods in the processing community development projects of the DHNC P/P/As will be adopted, as stipulated below:

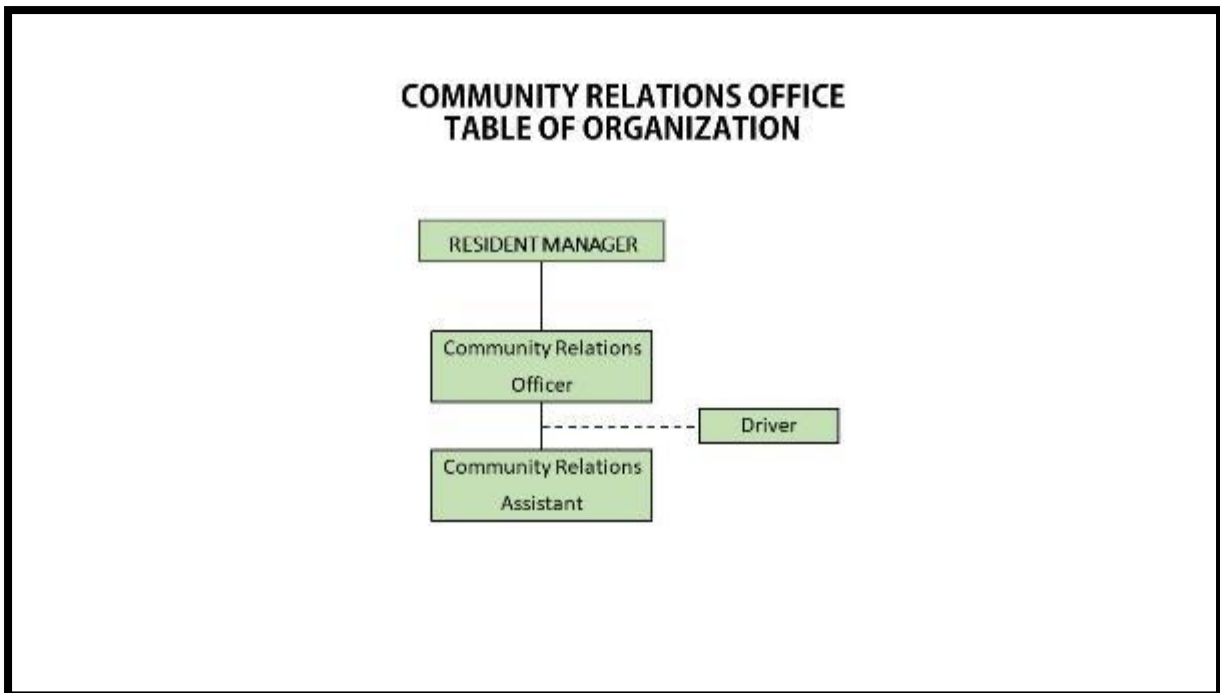
- Project proposals and program of works will be evaluated during the CTWG regular meeting or special meeting;
- Needed materials, supplies, and equipment for the P/P/As will be procured by ATN and will be awarded to the intended beneficiaries;

- The host communities/beneficiaries will impart time, knowledge, skills, talent and/or community resources as counterpart responsibility in accomplishing the P/P/As;
- A certificate of turn-over or project acceptance will be issued between ATN and the beneficiaries, attested by the concerned Barangay Council; and
- The budget realignment will require justifications and proof of consultation from the concerned communities/recipients.

5.2.2.1 SDMP Administration **The Community Relations Office**

The designated Community Relations Officer (CRO) of ATN Holdings Inc. is Engr. Elmer Delmiguez. The office will be established inside the project campsite. The CRO is responsible for building and maintaining the harmonious relationship between the company and the host communities. The CRO has to ensure the successful implementation of the SDMP, to organize and mobilize the communities for the realization of the goals and objectives.

Another important task of the CRO is to solicit and manage the concerns of the communities with regards to the safety and health, environment, and social aspects of the operation. Also, the CRO will be partly responsible for environmental scanning, planning, project consultations, management implementation, monitoring, and evaluation. The Office is composed of one (1) full-time Community Relations Officer and one (1) Community Relations Assistant. They will work hand in hand with the Communications Groups, who will be assigned to implement the Program on the Institutionalization of Public Awareness and Education in Mining and Geosciences. The CRO will report directly to the Resident Manager. He/She is assigned to prepare and submit all the SDMP reportorial requirements to the Mines and Geosciences Bureau (MGB).



5.2.2.2 Formation of Community Technical Working Group

The Community Technical Working Group (CTWG) is to be composed of representatives on primary impact Barangay LGU, Academe, Local Organizations, Community Health Unit, the Community Relations Officer and the Administrative Officer of ATN Holdings Inc or such other members as nominated and approved by the MGB IVA..

To ensure the effective implementation of the SDMP, the CTWG shall:

- Assist the CRO in the implementation of SDMP.
- Formulate guidelines on the submission and approval of projects for funding and implementation.
- Recommend/Endorse projects of the Barangays for funding and implementation.
- Actively participate in the monitoring and evaluation of projects funded and implemented.

5.2.2.3 Formulation of ASDMP

To uphold the principles and belief of the companies in its efforts to leave a lasting legacy beyond its mining operation's life prioritization of P/P/As for the ASDMP will be based on the following:

Based on needs. The needs of the community will be assessed through consultation and using available socio-economic data from the host barangay and municipality;

Impact. Consider high impact P/P/As that will spur further economic activities and will be of benefit to a more number of beneficiaries.

Cost Efficiency. This is the availability of the resources to implement the project based on the fund sources and community counterpart.

Viability and Sustainability. The readiness of the community to implement the P/P/As and their capacity to sustain the benefits derived from the SDMP.

5.2.2.4 Conduct of ASDMP Implementation, Monitoring, Auditing and Assessment

The SDMP budget for the implementation of the first ASDMP will be based on 75% of the 1.5% of the declared operating cost for the first year, while the succeeding ASDMP will be based on the actual operating cost of the previous years.

To effectively determine the level of the implementation of the P/P/A, a mid-year assessment will be conducted. The results of this assessment will be the basis for establishing systems that will fast-track the implementation of the P/P/A and identify necessary adjustments on the application of P/P/A. The MGB will be informed of the results of the assessment and will submit the required documents to justify the realignment of P/P/A.

The year-end assessment-planning workshop will also be conducted during November to evaluate the implementation of SDMP based on annual targets. The results of the assessment will be supplementary in planning for the proceeding year's ASDMP. Necessary adjustments or deviations from the approved 5-year SDMP will be justified and reported in the ASDMP. The ASDMP will be submitted to the MGB Region IV-A thirty (30) days before the start of the succeeding year.

5.2.2.5 Memorandum of Agreement

As required by Section 136B of the IRR, ATN shall enter into a Memorandum of Agreement (MOA) with the host communities as represented by the concerned Barangay Chairpersons within thirty (30) days from the approval of the SDMP. The MOA will be the affirmation of commitments among parties to ensure the implementation of the various P/P/A. The said MOA would be registered to the MGB RO IV-A.

The Company will provide Barangay Macabud a copy of the approved SDMP after receipt of the issuance of the MPP.

The CRO and CTWG will lead to the implementation of the SDMP. Technical assistance will be sought from different government offices, especially in undertaking activities for the livelihood and infrastructure programs. Implementation of the P/P/As will be linked and coordinated with private organizations and government offices. The established linked of the communities will somehow sustain the implementation of the P/P/As by the end of SDMP.

The recipients/beneficiaries from the host communities will be encouraged to impart time, knowledge, skills, and talent, and whatever resources as a counterpart in implementing the P/P/A. It may be in the form of labor/ services, a lot, or materials. Further, the communities should ensure the maintenance and sustainability of the completed/ turned-over P/P/A.

P/P/A-based MOA will be developed between the company and recipients in every P/P/A. This is an essential requirement before the turn-over of the P/P/A. The MOA shall contain the following information:

- a. Roles, responsibilities, and commitment of the parties involved;
- b. Systems and procedures in implementing the P/P/A;
- c. Operating Cost charges and counterpart of the community/recipient;
- d. Schedule of implementation; and
- e. Monitoring parameters and success indicators.
- e. Monitoring parameters and success indicators.

5.2.3 Monitoring of Program/ Project/Activity

In all the activities that shall be undertaken, the company, together with the CTWG, shall encourage the involvement of the community and the MLGUs during the SDMP implementation stage and regular monitoring.

The monitoring of the DHNC P/P/As will be conducted by the CRO of ATN together with the concerned CTWG member for specific P/P/A. Monthly internal monitoring reports will be prepared that will present physical and financial accomplishments, as well as issues and concerns experienced in implementing the P/P/As. The company will submit annual accomplishment reports to the MGB RO No. IV-A and a copy of the submitted reports will be forwarded to the MGB-Central Office (MGB-CO).

5.2.4 Evaluation of Program/Project/Activity

The evaluation of the P/P/As will be based on the success indicators stipulated in the P/P/As and results of the mid-year and year-end assessment of P/P/As implementation. The results of the evaluation will be discussed in the annual accomplishments reports.

The CTWG shall participate in the evaluation of the implemented projects based on the impact and yearly statistics of the barangay's socio-economic status, problems encountered, and how it was addressed.

6.0 MATRIX PRESENTATION OF 5-YEAR SDMP PROGRAMS/PROJECTS/ACTIVITIES (PPA)

5-YEAR SOCIAL DEVELOPMENT AND MANAGEMENT PROGRAM BUDGET		PERCENTAGE (%)	TOTAL AMOUNT (PhP)
I.	DEVELOPMENT OF HOST AND NEIGHBORING COMMUNITIES (DHNC)	75%	6,294,000.00
II.	INFORMATION, EDUCATION, AND COMMUNICATION CAMPAIGN (IEC)	15%	1,258,000.00
III.	DEVELOPMENT OF MINE TECHNOLOGY AND GEOSCIENCES (DMTG)	10%	839,200.00
TOTAL		100%	8,392,000.00

Table 11. Program/Project/Activities

P/P/A	Location	Beneficiaries	Stakeholders Involved	Brief Description	Expected Result	5-Year Indicative Budget (PhP)	Timeframe				
							Year 1	Year 2	Year 3	Year 4	Year 5
DEVELOPMENT OF HOST AND NEIGHBORING COMMUNITIES (DHNC)											
Institutional Capacity Building and Human Resource Devt.											
Community Training • Farming technology • Skills training for local organization • Cooperative	Brgy. Macabud	Local Organizations	BLGU, Local organizations	Conduct of support training/seminar to improve skills and knowledge of livelihood and local organizations	Enhanced capability of group/individual	250,000.00					
Access to Education and Educational Support Program											
Provision of Educational Materials	Brgy. Macabud	Brgy. Macabud Elem. School and High School	DECS, PTA officers and member, Faculty, Brgy. Council	Improvement of student's overall schooling experience	Enhancement of teaching method through educational materials and learning experience	500,000.00					

**5-Year Social Development and Management Program
ATN Aggregates Project**

Scholarship grants	Brgy. Macabud and neighboring communities	Qualified students (20 students @ 50k/year)	Host and neighboring communities	College scholarship to deserving students	College graduates of selected courses	1,000,000.00					
Improvement of school facilities	Brgy. Macabud	Residents and students	DOH, PTA members, elementary and high school students	Refurbishment of school buildings and facilities	Better educational facilities and environment	500,000.00					
Access to Health Services, Health Facilities and Health Professionals											
Provision of medicines and health equipment	Brgy. Macabud	Residents with health problem	BHW, MHO, DOH, and Brgy. Council	Quarterly provision of medicines and medicinal equipment	Improved health condition of residents and capacity of BHW	500,000.00					
Conduct of Medical Mission	Brgy. Macabud	Residents with health problem	BHW, MHO, DOH, and Brgy. Council	Conduct of free medical and dental check-up (annual)	Improved health condition of residents	500,000.00					
Construction of additional Brgy. Health Center	Brgy. Macabud	Residents with health problem	BHW, MHO, DOH, and Brgy. Council	Establishment of additional health facility	Improved access to health services and well-being of residents	500,000.00					
Enterprise Development and Networking											
Provision of planting materials and fertilizers	Brgy. Macabud	Farming organization	BLGU, MLGU, MAO	Provision of seed money and input materials for farming	Improved livelihood program and increase in yield of other sources of income	500,000.00					
Augmentation on livestock production	Brgy. Macabud	Selected residents	BLGU, MLGU, MAO	Provision of seed money	Improved livelihood program for livestock production	500,000.00					
Assistance to Infrastructure Development and Support Services											
Road repair and maintenance	Brgy. Macabud	Brgy. Council,	BLGU, MLGU, DPWH	Regular road maintenance	Better access and safe road network. Less road accident	500,000.00					
Improvement of water system	Sitio Laan, Brgy. Macabud	Sitio leader, Residents	BLGU, MLGU	Establishment of a water reservoir	Improved water supply and access to potable water	500,000.00					
Other support services	Brgy. Macabud					294,000.00					

Protection and Respect to Socio-Cultural Values											
Assistance to feast celebrations and sports	Brgy. Macabud	Community	BLGU, Local organizations, Youth	Provision of support to barangay feast celebrations and sports fest	Preserved cultural tradition and promotion of sports	250,000.00					
Sub-Total						6,294,000.00					
PROMOTION OF PUBLIC AWARENESS ON MINING TECHNOLOGY AND GEOSCIENCES (PPAEMTG)/INFORMATION, EDUCATION, AND COMMUNICATION (IEC)											
Community IEC	Brgy. Macabud	Brgy. Macabud	CTWG, Brgy. Council, local organizations	Conduct of regular IEC to establish a good relationship with the host barangay	Informed community regarding ATN Aggregates Project development activities	200,000.00					
Community Technical Working Group	Brgy. Macabud	CRO, Brgy. Council, local organizations	CTWG, ATN, Brgy. Council, sectoral representatives	Composition and formation of CTWG Monthly monitoring/updating, and regular meeting	Effective implementation and monitoring of SDMP	200,000.00					
IEC supplies, materials, and equipment	ATN Basecamp	CRO and CTWG	CTWG, ATN, Brgy. Council, sectoral representatives	Procurement of necessary IEC supplies and materials for the implementation of IEC		200,000.00					
Publication, radio broadcasting, video production, & semi-annual release of companies newsletter	Brgy. Macabud	CRO and CTWG	CTWG, ATN, BLGU, MLGU	Installation of public information materials at a strategic location Distribution of ATN flyer/brochures	Informed community regarding ATN Aggregates Project development activities	258,000.00					
Mine Tour	To be identified	Interested LGUs, local organization, CTWG members	MLGU, BLGU, other stakeholders	Site visit to operating mines	Educated concerned stakeholders about benefits derived from responsible mining practices	200,800.00					

**5-Year Social Development and Management Program
ATN Aggregates Project**

Mining Related Seminar/ANMSE C/PMSEA	To be identified	ATN employees, CTWG, selected stakeholder's member	Local organization, BLGU, MLGU	Participation in any mining related seminar/symposium	Increased knowledge on responsible mining	200,000.00					
Sub-Total						1,258,800.00					
DEVELOPMENT OF MINING TECHNOLOGY AND GEOSCIENCES (DMTG)											
Scholarship Grant for Mining Related Courses	Brgy. Macabud and neighboring communities	Five qualified students (100k/each per year)	BLGU, meritorious students, TESDA	Provision of scholarship grant for mining related courses to deserving students	Graduates of mining related courses for future job	500,000.00					
Assistance to Rizal Quarry Academy	Rizal Quarry Academy	Rodriguez residents	Quarry companies/employees	TESDA education/skills training for various skills for quarry operations	Internationally recognized technical/competency skills	239,200.00					
Research	Project site	Company technical person or 3 rd party expert	Company	Techniques/method and selection of most appropriate vegetation cover that will thrive for the type of rocks at the project site	Improved efficiency/recovery of non-renewable natural resources or vegetation species for the rehabilitation/restoration of disturbed areas	100,000.00					
Sub-Total						839,200.00					
GRAND TOTAL						8,392,000.00					

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8.0 ANNEXES

8.1 Copy of Social Impact Assessment Report

DECEMBER 2019



DECEMBER 2019

SOCIAL IMPACT ASSESSMENT

FOR ATN AGGREGATES PROJECT 5-YEAR SDMP 1ST Phase
ATN HOLDINGS INC.

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A. INTRODUCTION

Social Impact Assessment (SIA) is an applied social science research aimed at identifying and analyzing intended and unintended social consequences, both positive and negative, of planned interventions and social change processes such as policies, programs, and projects. It can be considered as “all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of the society”.

For ATN Aggregates Project, SIA is important particularly in the identification of immediate or priority Programs/Projects/Activities in the first cycle of the company’s 5-year Social Development and Management Program (SDMP) plan. SIA plays a significant role at the start of the program development and management cycle. When conducted at the early stage of plan formulation, it provides a prospective analysis of the positive and negative impacts of programs and projects thus, providing implementers the options for monitoring and managing these consequences.

The overall objective is to secure social licenses, assess the current socio-economic conditions of the area and identify appropriate community development project in Barangay Macabud.

Moreover, the conduct of SIA significantly figures in the formulation and implementation of SDMP in the Philippines to comply with policy standards as espoused in the Philippine Mining Act of 1995 (RA 7942), accompanying rules and regulations, and administrative orders issued by the Department of Environment and Natural Resources (DENR), and to generate evidences to inform strategic management decisions on where to invest resources for the development of host and neighboring communities based on relevance, appropriateness, effectiveness, efficiency, and sustainability. Specifically, the activity aims to:

- a. Inform the community of the proposed project; its impact and benefits to the environment and to the people, and simultaneously gather their opinions and suggestions;
- b. Conduct of key informant interview, focus group discussion and SDMP perception survey to facilitate analysis of information, in the practice of critical self-awareness, in sharing of knowledge and in making decisions on the developmental direction for the concerned community and in determining a sustainable utilization of the resources in the community;
- c. Analyze possible impacts of the 5-year SDMP (2020-2024) on institutions, groups, and individuals of Barangays Macabud; and
- d. Develop Monitoring & Evaluation system of the Community Relations Department of ATN particularly for SDMP.

B. ASSESSMENT METHODS

Social science research tools such as interviews, surveys and researches were conducted to be able to obtain information, issues and concerns that exist in the covered area of the proposed project.

1. Collection and Review of Secondary Data

Data gathering was conducted in April 2019, prior to the scheduled public scoping. These data were reviewed specifically the socio-economic profile of Barangay Macabud and Rodriguez Rizal, together with the project documents and other related information.

2. Key Informant Interview (KII)

Also in April 2019, KII was done with residents, and members of people’s organizations. This methodology is a qualitative in-depth interviews with people who have a diverse background on the history and current situation of the community. It is an effective tool in gathering information from a wide range of people who have first-hand knowledge and understanding about the community. This is also the venue to discuss sensitive issues where some individuals don’t want to voice out in group discussion.

3. Focus Group Discussion (FGD) and SDMP Consultation

This activity was conducted on November 23, 2019 at the Barangay Hall of Macabud, Rodriguez Rizal. FGD is a form of qualitative information dissemination and collection where questions are asked about their perceptions attitudes, beliefs, opinion or ideas about the project that encourage discussions among the participants

4. Perception Survey

To further assess and evaluate the extent of awareness of the stakeholder’s issues and concerns, and perceived priority community development projects this method was undertaken on November 18-22, 2019 covering the concerned stakeholders from Barangay Macabud.

C. PROJECT BACKGROUND

Project Name	ATN Aggregates Project
Project Proponent	ATN Holdings Inc.
Authorized Representative	Paul Saria, CEO
Proponent Address	9 th Floor, Summit One Tower, 530 Shaw Boulevard, Mandaluyong City, Philippines
Proponent Contact Details	(032) 4040-0239/404-2596
Nature of Project	Major Quarrying and Crushing Project
Proposed Extraction Rate	7,000,000 DMT
Proposed Annual Crushing Rate	5,000,000
Commodity	Aggregates
Location of Quarry and Facilities	Barangay Macabud, Rodriguez, Rizal
Permit	EP=IVA-019
Total Project Area	82.7092 Hectares
Mining Method	Surface Mining - Quarrying
Project Components	Quarry (includes haul and access roads, crushing plant, stockpile and dumps

	<p>Support facilities (includes office buildings, housing facilities, and bunk houses, security outposts, and facilities, motorpool, nursery area)</p> <p>Pollution Control facilities (including sedimentation ponds/settling ponds, pit drainage)</p>
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1. Location and Accessibility

ATN Holdings Inc. exploration tenement area denominated as EP-IVA-019 which covers an area of 82.7092 hectares is located at Barangay Macabud, Municipality of Rodriguez, Province of Rizal. The project site can be reached via the Marikina-San Mateo Road passing through Cubao or Sumulong Highway while the other route is via Fairview passing through the Commonwealth Avenue-Litex-Payatas road. From Rodriguez proper the site is approximately 3 kilometers away.

The exploration permit area is bounded by the following geographic coordinates:

Table 12. Technical Description

CORNER	LATITUDE	LONGITUDE
1	14° 47' 00.000"	121° 08' 00.000"
2	14° 47' 30.000"	121° 08' 00.000"
3	14° 47' 30.000"	121° 08' 30.000"
4	14° 47' 00.000"	121° 08' 30.000"
Area = 82.7092 Hectares		

Figure 9. Tenement Map

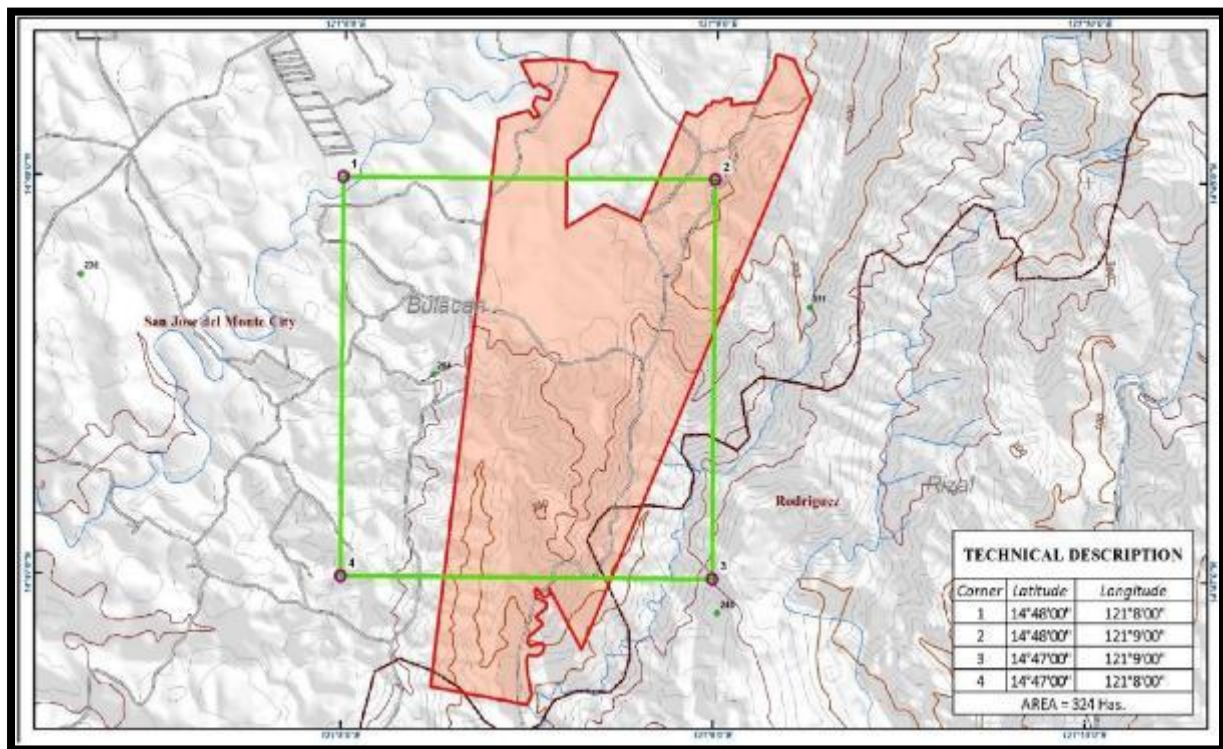
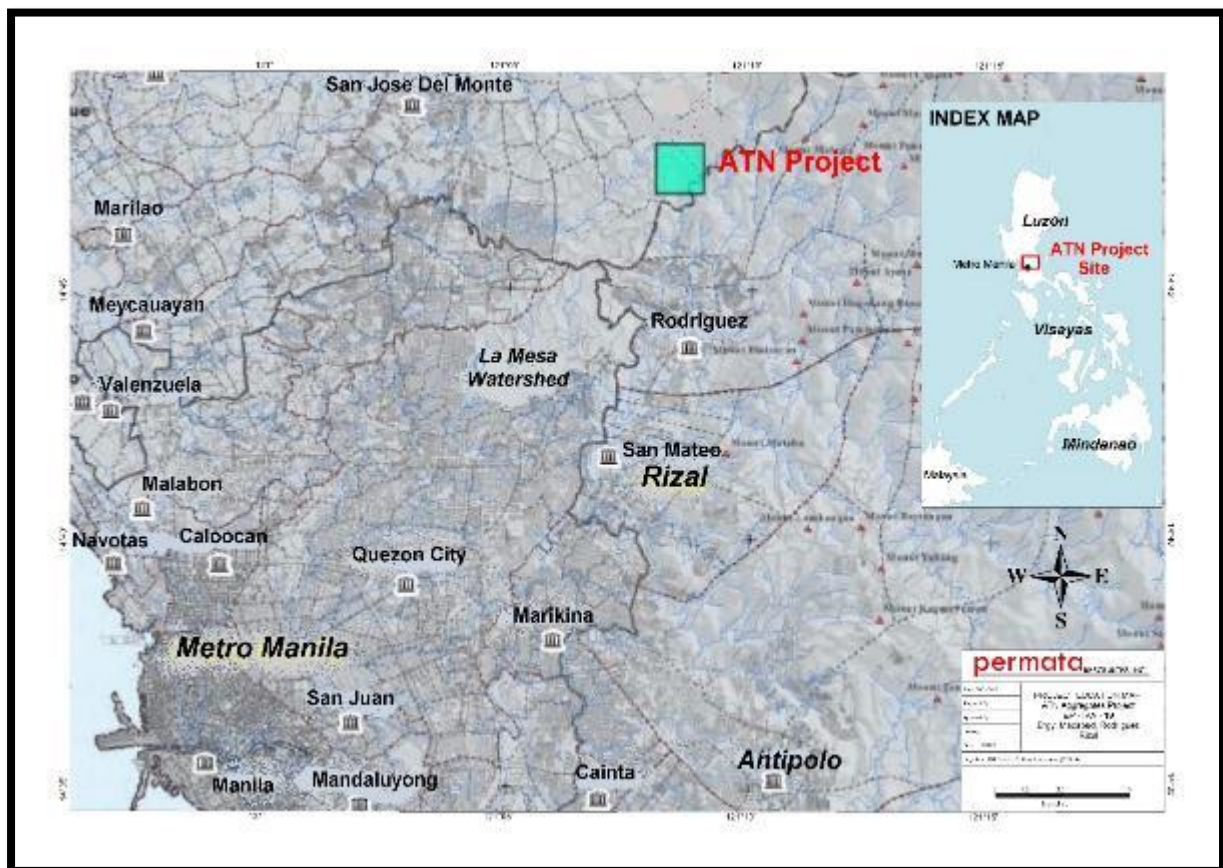


Figure 10. Vicinity Map



D. SITE PROFILE

1. Geographical Location

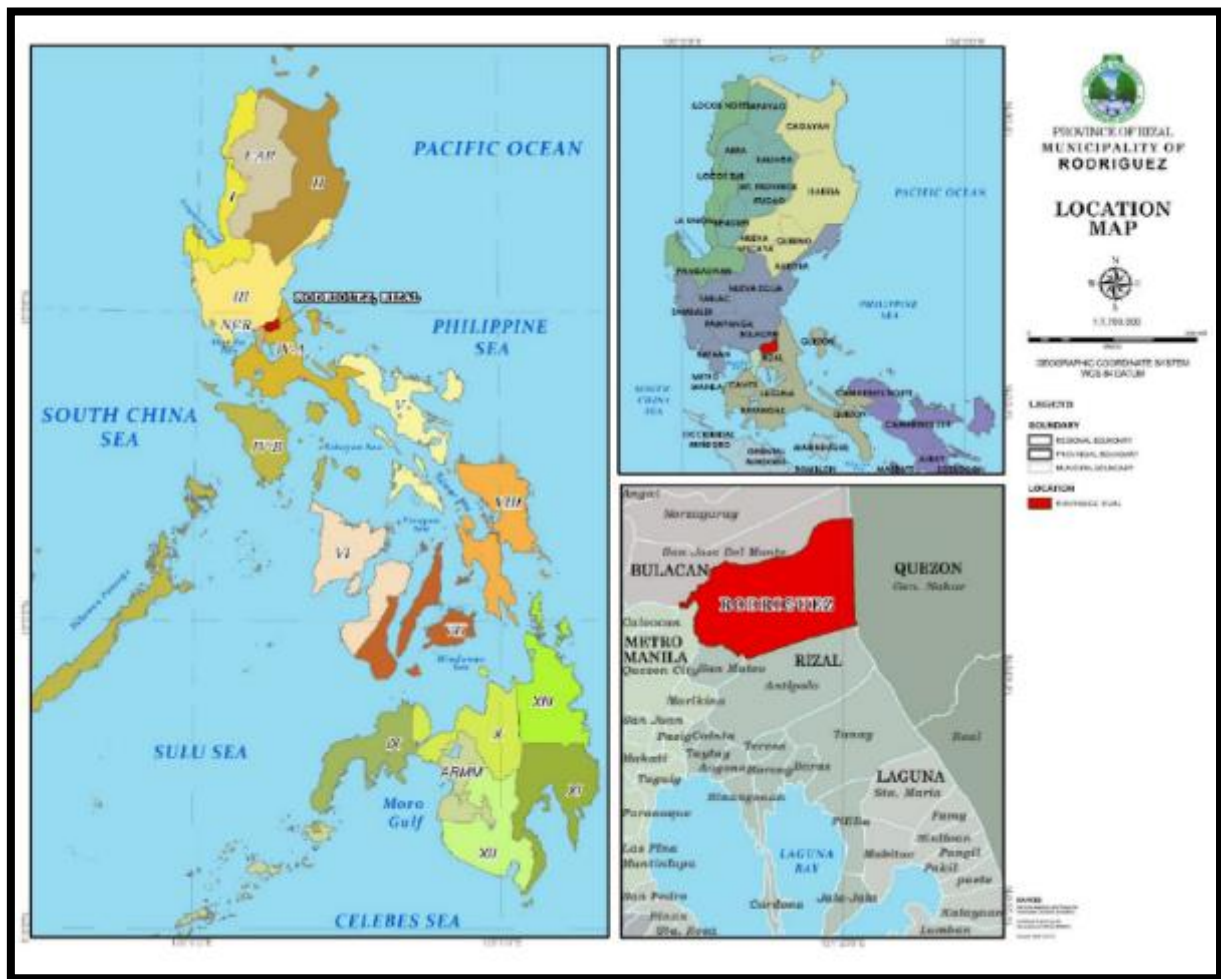
Barangay Macabud which is the host barangay of ATN Aggregates Project is one of the 11 barangays of Rodriguez, Rizal and located in the northernmost part of Rodriguez and bounded in the north by Norzagaray, Bulacan, in the west by San Jose Del Monte, Bulacan; Pangarap, Caloocan City and Quezon City and in the south by Barangay San Jose of Rodriguez . Barangay Macabud has a total land area of 1,886 hectares representing 5.19% of the total municipal land area.

Municipality of Rodriguez is situated in the northernmost part of Rizal Province and within the fringes of Metro Manila. Situated at the foot of the Sierra Madre Mountains with a total of 36,307.31 hectares or 363.07 km², it is one of the largest municipalities in Rizal Province in terms of land area. More than 40% (12,620.90 hectares) of the Upper Marikina River Basin and Protective Landscape (UMRBPL) is part of the municipality. It is bounded on the West by Quezon City and Caloocan City; on the North by San Jose del Monte City, Bulacan; on the East by the Municipality of General Nakar, Quezon and by Antipolo City and San Mateo, Rizal on the South.

Table 13. Land Area by Barangay

BARANGAY	AREA (hectares)	% DISTRIBUTION
Balite	53.88	0.15%
Burgos	276.00	0.76%
Geronimo	36.75	0.10%
Macabud	1,886.00	5.19%
Manggahan	117.44	0.32%
Mascap	7,576.41	20.87%
Rosario	25.17	0.07%
San Isidro	3,792.00	10.44%
San Jose	1,045.28	2.88%
San Rafael	6,061.45	16.69%
Total	36,308.07	100.00%

Figure 11. Location Map of Rodriguez, Rizal

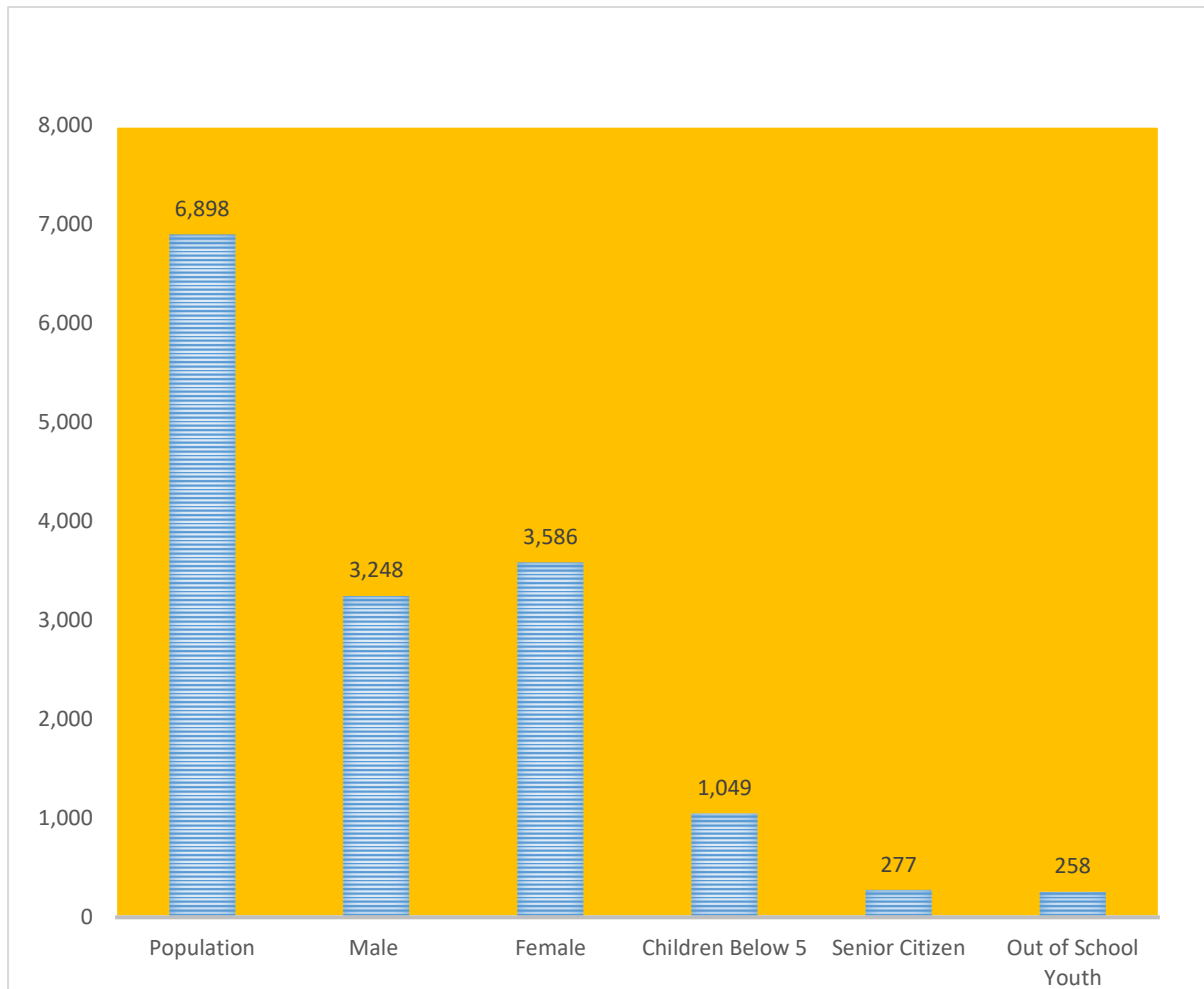


2. Demographic Information

a. Demography of Barangay Macabud

In the 2011 barangay census, Macabud recorded a population of 6,898 from 1,454 households. Majority of the population is female (51%) with the rest being male (49%). Children below 5 years of age represented 15.21% while senior citizens were only 4.02% of the population. The Out of School Youth population represented 4.02%. The barangay had a total of registered voters numbering 3,871. Figure 2 presents the demographic profile of Barangay Macabud. In year 2015, the population of the barangay increased to 9,707.

Table 14. Demographic Profile of Barangay Macabud



The people of Macabud are composed of different sub-groups such as Tagalog, Bisaya, Muslim and Dumagats (Indigenous Peoples). Most of the Dumagats live in Sitio Karahume while Muslims are in Sitio Jovil III and Laan. There are also immigrants from different places of Metro Manila.

b. Religious Affiliation

More than 80% of the population in Barangay Macabud are Catholic while 9.71% are Christians, 6.99% are Iglesia ni Cristo and the rest belongs to various religious affiliations such as Jehovah’s Witnesses, Ang Dating Daan, Islam, and Seventh Day Adventist.

c. Education

Primary and Secondary education is accessible to the community. There is one public elementary school, one public high school and one private school (Saint Joseph Christian Academy). There are day care centers in Sitio Karahume, Sitio Licao-Licao, Sitio Harangan and Sitio Laan that caters to children below six years of age.

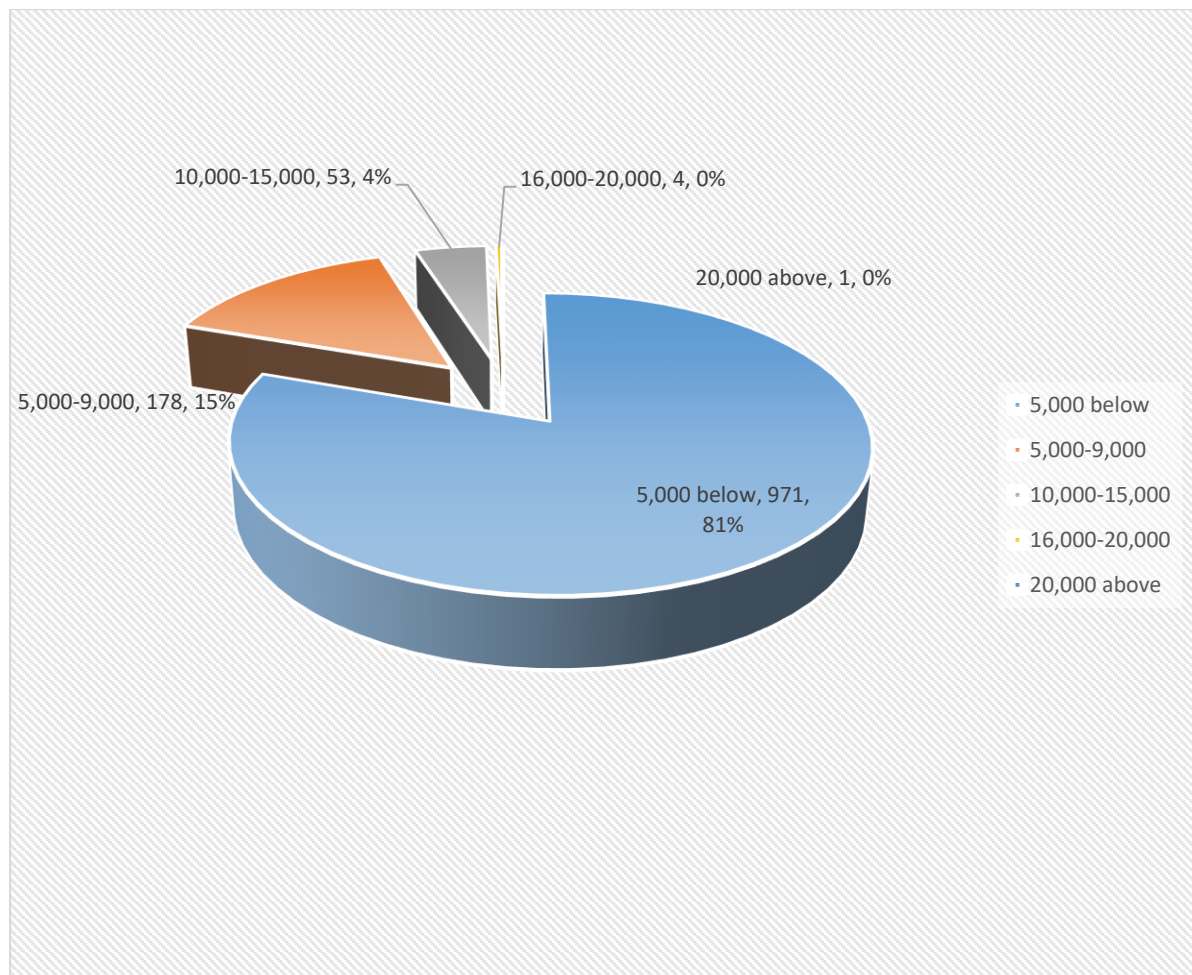
d. Occupation/Employment

Macabud is considered an agricultural community with land under the Comprehensive Zoning Ordinance of Rodriguez. The top five occupations in Macabud are farmers (52.5%), laborer (12.89%), driver/conductor (7.83%), self-employed (5.86%), and vendor (3.83%). The rest, around 11%, are engaged in various employment/occupations. However, more than 1,500 of the total population are unemployed.

e. Income

Based on the data obtained from the Barangay profile, more than 80% of those with occupation have incomes below PhP5,000, 15% have incomes between PhP5,000-9,000, 4% have incomes between PhP10,000-15,000 and only a few are earning more than P16,000 per month.

Table 15. Distribution of Monthly Income



f. Health

Barangay Macabud has a health center with 10 Barangay Health Workers, two nutritionists, and one midwife. Most of the common diseases reported are: fever, cough, colds, tonsillitis, infected wound, tuberculosis, diarrhea, UTI, hypertension, infantile colic, otitis media and influenza. The barangay is free from malaria and dengue diseases.

g. Governance

Barangay Macabud is governed by the Sangguniang barangay, a collegial body of elected Officials headed by the Barangay Chairman. The current Barangay Officials of Macabud are the following:

Barangay Chairwoman: **Hon. Judith U. Gandia**

Barangay Councilors: **Hon. Virginia S. Lastimada**

Hon. Jaime S. Pascual

Hon. Vergilio C. Roque

Hon. Guillermo C. Bautista

Hon. Dominador R. Sadya

Hon. Analiza S. Montaña

Hon. Nestor G. Villeza

SK Chairman: **Hon. Joseph Catayoc**

The Sangguniang Barangay is supported by the following key personnel:

Secretary: Hon. Desiree Neddy S. Alcazar

Treasurer: Hon. Willbeth B. Calleja

h. Local Organizations

Below is the list and functions of notable organizations in Barangay Macabud:

ORGANIZATION	FUNCTION
Pantawid Pamilyang Pilipino Program (4Ps)	It is a human development measure of the national government that provides conditional cash grants to the poorest of the poor to improve the health, nutrition, and education of children aged 0-18.
Farmer's Association (IARBARRI, and SAMAKA)	Facilitate the integration of farmers into markets, improvement of quality of life, and promoting sustainable fishing practices.
Senior Citizens	This group aimed at organizing the elderly to identify their needs, welfare, and rights especially on health.
Women's Organization (Montalban Ladies Association, and Yellow Ladies)	Ensure the full integration of women for economic, social and cultural development at the municipal and barangay level.
Tricycle Operators and Drivers Association	One of their primary objectives of TODA is to provide programs such as livelihood, assistance on the issuance of franchise and others. The regular meeting was also scheduled for the

	monitoring of the activities of Macabud TODA.
Odiongan New Generations	A civic organization composed of youth representatives.

E. RESULTS OF SOCIAL IMPACT ASSESSMENT

1. Key Informant Interview

The key informant interview was held on April 11 and 14, 2019. The informants of the summary of issues and concerns illustrated in the table below are young couple and individuals residing in Barangay Macabud.

Location	Issues and Concerns	Remarks/Recommendation
Barangay Macabud Date: April 11 & 14, 2019	Harmful to the environment	It will cause flooding in Rodriguez town proper The in-depth study should be done and mitigating measures have to be put in place
	Awareness on the proposed project	Majority of the residents in the barangay are unaware of the proposed 82 hectares aggregates project.
	Established Electrical Post in the Barangay	Need clarification if the electrical post erected at the barangay is under the ATN solar project
	Possible landslide	Location of the cemetery is very close to the on-going quarry operation of ATN. If the operation will expand it will imperil the cemetery from landslide
	Blasting	When they do blasting it is like a tremor felt at the barangay
	Dust Pollution	ATN have to put mitigating measured on dust caused by transportation of aggregates and crushing plant
	Resistance to the project	Most of the residents are resistant to accept the project because it will affect the agricultural land. Farming is one of the main sources of living in the area.
	Employment	Residents of Barangay Macabud should be prioritized in hiring employees
	Land Rights	There is an on-going issue regarding the ATN claim (titled land) vs the actual user of the land The land has no title but occupants are cultivating the area a long time ago

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	No proper consultation with the residents	ATN only meet with the barangay council. Residents are unaware of the details of the project. ATN have to implement an IEC program
	People are misinformed	The problem with the people in the area is that they are listening/believed from the wrong information disseminated to them by individuals that includes some members of the barangay council. This issue can be clarified during the public scoping.
	Project acceptance in Sitio Laan	In Sitio Laan, where the on-going ATN operation is situated, the residents are in favor of the project

2. FGD/SDMP Consultation Meeting

On November 23, 2019, an SDMP consultation was held in Barangay Macabud. The objective of the meeting is to inform and consult the barangay regarding the ATN Aggregates Project's social responsibility of which one of these is the implementation of the SDMP.

The attendees of the meeting was headed by Hon. Councilor Renie T. Nedusa Sr. He welcome the ATN representatives and express apologies because the other council members were not present due to prior scheduled activities. He also clarify to the group that they will not sign the attendance sheet. ATN respected their decision.

A PowerPoint presentation was presented by ATN representative to provide knowledge to the attendees about the laws pertaining to the program and the company's implementation scheme as mandated by law. Below is the outline of the presentation:

- Objective of SDMP
- DAO 2010-21 Section 135-136 (implementing rules and regulation of SDMP)
- SDMP Budget allocation
- SDMP Components
 - Development of Host and Neighboring Communities (DHNC)
 - Promotion of Public Awareness on Mining Technology and Geosciences (PPAMTG)/Information, Education, and Communication (IEC)
 - Development of Mining Technology and Geosciences (DMTG)
- SDMP Credited activities for Social Expenditures
 - DHNC (Health, Education, Livelihood, Infrastructures, and Socio-Cultural)
 - PPAMTG/IEC
 - DMTG

After the presentation the presenter informed them that part of the consultations is to conduct an SDMP workshop but councilor Nedusa decided not to proceed with it because the other barangay official were not around. ATN shared that the company has on-going SDMP perception survey that was allowed by Honorable Barangay Captain Judith U. Gandia. Since

the workshop will not be conducted the result of the survey is already enough as basis for the formulation of the 5-Year SDMP. It was also clarified that once the 5-Year SDMP have been approved by MGB, an Annual SDMP have to be prepared by ATN in consultation with the barangay.

Councilor Nedusa and the rest of the attendees expressed interest in the SDMP and accepted the perception survey form to be filled. They will share the discussion with the other community members such as; farmers, neighbors, relatives and friends. Kagawad Nedusa will also discuss the SDMP and excerpts of the meeting in their next barangay council session.

3. Perception Survey

The SDMP perception survey was conducted on November 18-22, 2019. These were carried out in Sitios within Barangay Macabud. Respondents considered to be interviewed are household heads, spouses of household heads, sons or daughters of household heads who are at least 18 years old, and other household members who are also at least 18 years of age. Below is the result of the random survey.

a. Respondents Profile

Age Distribution

All of the respondents are at the working age. Most of the respondents were in the age bracket from 41-45 years old or 25% of the total respondents. Age bracket of 31-35, 36-40, and 56-60 have 13.9% respondents while 61 years old and above have 11.1% respondents.

Table 16. Distribution of Respondents Based on Age

Age of Respondents	Frequency	Percentage
16-20	1	2.8
21-25	2	5.6
26-30	3	8.3
31-35	5	13.9
36-40	5	13.9
41-45	9	25.0
46-50	2	5.6
51-55		0.0
56-60	5	13.9
61-above	4	11.1
Total	36	100.0

Sex Distribution

Based on the result of the survey both sexes have been represented equally with 50% each of respondents.

Table 17. Distribution of Respondents Based on Sex

Gender	Frequency	Percentage
Male	18	50.0
Female	18	50.0
Total	36	100.0

Place of Birth

Most of the respondents were born in Rodriguez, Rizal with 33.3% or 12 individuals. It was followed by respondents who migrated from Aklan due to inter-marriage with 8.3%. The rest of the respondents have almost equal representation which originates from different provinces in Luzon, Visayas and Mindanao.

Table 18. Distribution of Respondents Based on Birthplace

Place of Birth	Frequency	Percentage
Rodriguez, Rizal	12	33.3
San Mateo, Rizal	1	2.8
Surigao Del Norte	2	5.6
Aklan	3	8.3
Bulacan	2	5.6
Oriental Mindoro	1	2.8
Lanao Del Sur	1	2.8
Marikina City	1	2.8
Makati City	1	2.8
Davao Del Sur	1	2.8
Roxas City	2	5.6
Nueva Vizcaya	1	2.8
Kidapawan City	1	2.8
Negros	1	2.8
Masbate	1	2.8
No Answer	5	13.9
Total	36	100.0

Distribution of Religion

Only two religions represented the respondents. Majority of it belongs to Iglesia Ni Cristo with 52.8% while Roman Catholic is 38.9%. Three (8.3%) of the respondents did not disclose their religious affiliation.

Table 19. Distribution of Respondents Based on Religion

Religion	Frequency	Percentage
Roman Catholic	14	38.9
Iglesia Ni Cristo	19	52.8
No Answer	3	8.3
Total	36	100.0

Marital Status

The survey have 23 or 63.9% respondents that are married. There are 6 (16.8%) that are single while widow is 3 or 8.3%. Two (5.6%) are separated.

Table 20. Distribution of Respondents Based on Marital Status

Marital Status	Frequency	Percentage
Single	6	16.7
Married	23	63.9

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Separated	2	5.6
Widow	3	8.3
Widower	1	2.8
No Answer	1	2.8
Total	36	100.0

Household Role of Respondents

Most of the respondent's role in the family are Father or Household head with 15 individuals or 41.7% of the total of respondents. Mother role followed with 12 (33.3%) while 11.1% area daughters.

Table 21. Distribution of Respondents Based on Role in the Family

Role in the Family	Response	
	Count	Percentage
Father	15	41.7
Mother	12	33.3
Son	1	2.8
Daughter	4	11.1
Others	4	11.1
Total	36	100.0

Educational Attainment

Of the 38 total of respondents, 14 (38.9%) are high school graduate while 12 (33.3%) finished elementary school. Only 5 or 13.9% reached college level of education while 3 or 8.3% are college graduate. Only 1 (2.8%) respondent finished vocational course.

Table 22. Distribution of Respondents Based on Educational Attainment

Educational Attainment	Response	
	Count	Percentage
Elementary	12	33.3
High School	14	38.9
Vocational	1	2.8
College Level	5	13.9
College Graduate	3	8.3
No Answer	1	2.8
Total	36	100.0

b. Family Information of Respondents

Source of Income

Most of the respondents sourced their income from small businesses with 12 respondents (33.3%). Unemployed follows with 25% while privately employed is 19.4%. There are 4 (11.1%) that are farmers, 2 (5.6%) are government employees, and 2 (5.6%) are tricycle drivers.

Table 23. Distribution of Respondents Based on Source of Income

Source of Income	Response	
	Count	Percentage
Government Employee	2	5.6
Private Employee	7	19.4
Self Employed	12	33.3
Farmer	4	11.1
Driver	2	5.6
Unemployed	9	25.0
Total	36	100.0

Monthly Income

It is evident on the result of the survey that most of the respondents belongs to low income family. Nine (25.4%) of the total respondents are jobless or no income while only 8 or 22.2% are receiving a monthly income from 1,001-5,000 pesos. Six respondents or 16.7% have a monthly income that range from 5,001-10,000, 8.3% receives 1,000 pesos and below, and only 5.6% percent have monthly salary range of 15,001-20,000 pesos.

Table 24. Distribution of Respondents Based on Monthly Income

Income	Response	
	Frequency	Percentage
Below 1,000	3	8.3
1,001-5,000	8	22.2
5,001-10,000	6	16.7
10,001-15,000	1	2.8
15,001-20,000	2	5.6
Above 20,000		0.0
No Income	9	25.0
No Answer	7	19.4
Total	36	100.0

Length of Residency

Majority of the respondents (69.4%) have a length of residency in Barangay Macabud of more than 10 years. Three (8.3%) respondents only stayed in the community for 3 years while the rest have no answer or have a year of residency in Macabud.

Table 25. Distribution of Respondents Based on Length of Residency

Year of Residency	Response	
	Count	Percentage
1	1	2.8
2		0.0
3	3	8.3
4	2	5.6
5	1	2.8
6		0.0

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7	1	2.8
8		0.0
9		0.0
10-above	25	69.4
No Answer	3	8.3
Total	36	100.0

Household Size

Ten or 27.8% of the respondents have household size with 5 members while respondents with a size of 6 family members follows with 22.2%. Four respondents or 11.1% have household size of 2 and another 11.1% with 4 family members.

Table 26. Distribution of Respondents Based on Household Size

Number of Family Members	Frequency	Percentage
1		0.0
2	4	11.1
3	2	5.6
4	4	11.1
5	10	27.8
6	8	22.2
7	2	5.6
8		0.0
9	1	2.8
10-above	2	5.6
No Answer	3	8.3
Total	36	100.0

c. Housing Information of Respondents

Structure of the House

Thirty three percent or 12 respondents revealed that their house is made of mixed housing materials while 7 respondents or 19.4% shared that their house structure is a combination of nipa and wood. Five respondents or 13.9% have house made of concrete and G.I. roofing, another 13.9% made of nipa and bamboo, and 11.1% is a combination of nipa and concrete.

Table 27. Distribution of Respondents Based on Structure of the House

Structure of House	Frequency	Percentage
Nipa/Bamboo	5	13.9
Nipa/Wood	7	19.4
Nipa/Concrete	4	11.1
GI Roof/Wood	3	8.3
GI Rood/Concrete	5	13.9
Mixed	12	33.3
Total	36	100.0

Ownership of the House

More than half or 55.6% of the respondents owned the house their household presently inhabits. Only mere 8.3% were rented while 8.3% are owned by their parents. There are 16.7% respondents that are caretakers of the house they inhabit.

Table 28. Distribution of Respondents by Ownership of the House

Ownership	Frequency	Percentage
Owned	20	55.6
Rented	3	8.3
Owned by Parents	3	8.3
Caretaker	6	16.7
No Answer	4	11.1
Total	36	100.0

Source of Water

Fifty percent of the respondents are sourcing their water from a spring. Respondents that sourced water from deep well with pump is 19.4% while another 19.4% is sourcing water from deep well without a pump. A mere 8.3% of respondents are getting water from river or creek.

Table 29. Distribution of Respondents Based on Source of Water

Source of Water	Frequency	Percentage
River/Creek	3	8.3
Deep Well (without pump)	7	19.4
Spring	18	50.0
Deep Well (with pump)	7	19.4
No Answer	1	2.8
Total	36	100.0

Source of Electricity

Eleven or 30.6% of respondents are using lamp with gas as lighting for their house while 22.2% have electrical line powered by Meralco. Since Meralco have limited line within the barangay, 16.7% of the respondents are using solar panel while households that are using battery 13.9%, similar to household that uses both solar and battery alternately.

Table 30. Distribution of Respondents Based on Source of Electricity

Source of Electricity	Frequency	Percentage
Meralco	8	22.2
Solar	6	16.7
Battery	5	13.9
Solar and Battery	5	13.9
Gas Lamp	11	30.6
No Answer	1	2.8
Total	36	100.0

Source of Fuel for Cooking

Majority of the respondents are using wood for cooking (65.8%) while 44.7% are using liquefied petroleum gas (LPG) with 44.7%. There are responses that they are alternately using LPG gas and wood.

Table 31. Distribution of Respondents Based on Source of Fuel for Cooking

Source of Fuel	Count	Percentage
Charcoal	3	7.9
Wood	25	65.8
Gas	3	7.9
LPG Gas	17	44.7
Others	2	5.3
Total	50	131.6

Sanitary Toilet Facility

Most respondents have toilet facility in their household presently inhabited with 86.1 percent while only 8.3% don't have toilet facility.

Table 32. Respondents with Toilet Facility

Toilet Facility	Frequency	Percentage
Yes	31	86.1
None	3	8.3
Others	2	5.6
Total	36	100.0

Garbage Disposal

Twenty one or 58.3% of respondents are disposing garbage by burning while 25% are burying their garbage at their backyard. Only six or 16.7% of the respondents' garbage are collected by garbage truck.

Table 33. Respondents Garbage Disposal Practice

Garbage Disposal	Frequency	Percentage
Burned	21	58.3
Collected by Garbage Truck	6	16.7
Buried at backyard (Decomposting)	9	25.0
Total	36	100.0

d. Health Information of Respondents

Sicknesses

The respondents identified various sickness that they have experienced for the past five years of stay in Barangay Macabud. Seventeen respondents family did not suffer from any sicknesses while respondent's family who have experience sicknesses the most common is fever with 21.4% followed by pneumonia with 9.5%. Other sicknesses experience were flu, LBM, asthma, and UTI.

Table 34. Sickness Experienced by the Family of Respondents for the last 5 Years

Type of Sickness	Count	Percentage
Fever	9	21.4
Flu	3	7.1
LBM	2	4.8
Asthma	2	4.8
Pneumonia	4	9.5
UTI	2	4.8
None	17	40.5
No Answer	3	7.1
Total	42	100.0

Presence of Barangay Health Center

Seventy five percent (75%) of the respondents confirm that there is a barangay health center in the barangay. However, 25% says that there is no established barangay in the community. It is probably because of accessibility reason. The health center is located at the barangay proper and far from the sitios.

Table 35. Presence of Barangay Health Center

Barangay Health Center	Frequency	Percentage
Yes	27	75.0
None	9	25.0
Total	36	100.0

Perception on Health Services

Most of the respondents perceived that the services provided by the health center is not poor with 47.2% response. Twenty five percent (25%) says that they are satisfied with the services provided while 22.2% are not sure.

Table 36. Perception on the Services of the Health Center

Satisfaction on Service Provided	Frequency	Percentage
Yes	9	25.0
No	17	47.2
Not Sure	8	22.2
No Answer	2	5.6
Total	36	100.0

Medical Services/Facility In Case of Sicknesses

Majority of the respondents which is 80.6% go to nearby health center or government hospital in case of sicknesses while 13.9% brought their sick family members to private clinic or hospital.

Table 37. Medical Facility in case of Sicknesses

Medical Facility	Frequency	Percentage
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Health center/govt. hospital	29	80.6
Private clinic/hospital	5	13.9
No Answer	2	5.6
Total	36	100.0

e. Environmental Awareness

Environmental Problem

Concerning environmental problems being experienced by the respondents, the most common problem identified are bad road condition with 18.5%, environmental degradation (16.7%), no electricity (16.7%), and poor water system/supply (7.4%). Three respondents (5.6%) at disclose they've lost their farm lots due to the quarry operation in the area.

Table 38. Environment Related Problem Experienced

Environmental Problem	Count	Percentage
Bad Road condition	10	18.5
Environmental Degradation	9	16.7
Noise Pollution (Crushing Plant)	2	3.7
Loss of farmlots/Land ownership	3	5.6
Dust Pollution	3	5.6
Garbage smell/stink	3	5.6
Poor Water System/Supply	4	7.4
No Electricity	9	16.7
Flooding	3	5.6
None	2	3.7
Others	2	3.7
No Answer	4	7.4
Total	54	100.0

Mitigating Measures/Development Project

In relation to the above environmental concerns mentioned, 44.4% of the respondents share that the local authority have provided mitigating measures and development but they were not satisfied with the projects and results. Fourteen respondents (38.9%) remarks that local authority don't have any actions implemented to mitigate or resolve the problems.

Table 39. Implementation of Mitigating Measures and Development

Mitigating Measures	Frequency	Percentage
Yes	16	44.4
None	14	38.9
Others	1	2.8
No Answer	5	13.9
Total	36	100.0

Changes/Development for the last 5 Years

Respondents recognized that there are development project in the area but still they are not satisfied with the result and instead the answers acquired from them were mostly negative

observations. The most number of answers from the respondents about the development observed in the area for the last five years is the slow socio-economic and development growth with 16.7%, dust pollution (11.1%), environmental degradation (11.1%), noise pollution due to crusher operation (8.3%), and loss of farm lots which was acquired by quarry operation (8.3%).

Table 40. Changes/Development in the Barangay for the last 5 Years

Projects for the last 5 Years	Count	Percentage
Loss of farm lots	3	8.3
Dust Pollution	4	11.1
Noise Pollution (crushing plant)	3	8.3
Partial Road Construction	3	8.3
Flooding of mud	1	2.8
Slow Economic/Development Growth	6	16.7
Environmental Degradation	4	11.1
None	7	19.4
No Answer	5	13.9
Total	36	100.0

**f. Proposed Community Development Program/Projects
Concerns Related to Source of Income/Livelihood**

The most number of concerns gathered from the survey with regards to source of income and employment is the lack of work opportunity (27.9%), followed by lack or no capital in order to start a small business (18.6%). Respondents who are engaged into livestock experienced problem on pest/virus (11.6%), while lack of skills and no educational attainment resulted into problem of earning a job (9.3%).

Table 41. Community Issues in Relation to Source of Income/Livelihood

Issues	Count	Percentage
Lack of Work Opportunity	12	27.9
Livestock pest/virus problem	5	11.6
No farm lots (affected by quarry)	4	9.3
No livelihood program	1	2.3
Establish Cooperative	1	2.3
No Capital	8	18.6
Lack of Skills/No Educational Attainment	4	9.3
No Answer	8	18.6
Total	43	100.0

Trainings Needed for Local Organizations

To uplift the socio-economic difficulty in the area, most of the respondents recommend to have livelihood training (45.2%) while health and sanitation training have 11.9% respondents. Remarkably, 31% of the respondents did not answer the question.

Table 42. Perceived Training Needed for Local Organizations

Trainings Needed	Count	Percentage
Livelihood Training	19	45.2
Health and Sanitation Training	5	11.9
Educational Training	4	9.5
Training for Women	1	2.4
No Answer	13	31.0
Total	42	100.0

Educational Problem

Lack of educational facility for elementary school and high school is the main issue of most of the respondents. Twenty one of them or 58.3% complains that the school is located at the barangay proper and very far from remote Sitios. Another concern is financial difficulty to send their children to high school and college with 25.0% respondents.

Table 43. Educational Problem of the Community

Educational Problem	Frequency	Percentage
School is far from Sitios	21	58.3
Lengthen school class	1	2.8
Financial Problem	9	25.0
No Answer	5	13.9
Total	36	100.0

Water Problem

Poor water supply especially during dry season is the most concern of the respondents (25%). They are hoping that MWSS will establish water line to the residents with 22.2% respondents while 19.4% express concern on the existing water system. 30.6% of the respondents did not answer the question.

Table 44. Water Problem

Water Problem	Count	Percentage
Poor Water System	7	19.4
No existing line from MWSS	8	22.2
Poor Water Supply	9	25.0
Distance of water source	1	2.8
No Answer	11	30.6
Total	36	100.0

Infrastructure Problem

Fifty percent (50%) of the respondent complained about the bad road condition in the Barangay especially in Sitio Laan. Sixteen or 44.4% of the respondents have no answer to the question.

Table 45. Infrastructure Problem

Infrastructure Problem	Frequency	Percentage
Bad Road Condition	18	50.0
Construction of bridge	1	2.8
None	1	2.8
No Answer	16	44.4
Total	36	100.0

Perceived Solution on Source of Income

Suggestions have been reflected in the survey as possible solution to employment or source of income by the respondents. Livelihood program (36.7%) have the most number of suggested solution followed by capital loan (28.6%) that they can use to start a small business or other source of livelihood. Employment was also suggested with 10.2% respondents.

Table 46. Suggested Solution on the Issue of Source of Income

Perceived Solution	Count	Percentage
Employment	5	10.2
Livelihood Program	18	36.7
Market for farm products	1	2.0
Capital Loan	14	28.6
No Answer	11	22.4
Total	49	100.0

Proposed Educational Support

Because of the financial problem of the respondents, they recommend to have a free education with 29.3% while scholarship is 17.1%. Due to access to school because of distance, 17.1% of respondents suggested to establish school facilities in remote sitios.

Table 47. Perceived Solution to Improve Access to Education

Proposed Educational Project	Count	Percentage
Establish School in Remote Sitios	7	17.1
Free Education	12	29.3
Assistance to School	1	2.4
Scholarship	7	17.1
Others	1	2.4
No Answer	13	31.7
Total	41	100.0

Proposed Solution to Health Issue

Provision of free medicine and free medical consultation were the most suggested solution by the respondents with 30.28% and 20.8% respectively. Establishment of health center at remotes sitios have 18.9% respondents.

Table 48. Perceived Solution to Health Issue

Proposed Health Assistance/Project	Count	Percentage
Establish health center	10	18.9
Establish hospital	2	3.8
Electricity	1	1.9
Potable Water	2	3.8
Feeding program for malnourished	1	1.9
Free Consultation	11	20.8
Provision/Free Medicine	16	30.2
No Answer	10	18.9
Total	53	100.0

Suggested Community Development Training

Majority of the respondents did not answer the question with 52.8%. Proposal on livelihood training follows as answer to the poverty problem in the area with 22.2%.

Table 49. Proposed Community Development Training

Proposed Trainings	Count	Percentage
Livelihood Training	8	22.2
Communication	2	5.6
Family Planning Seminar	1	2.8
Community Development Training	3	8.3
Peace and Order	2	5.6
Organizational Training	1	2.8
No Answer	19	52.8
Total	36	100.0

Proposed Infrastructure Project

Suggestion for road improvement have 27.1% response while establishment of electricity is 25%. Interestingly, 35.4% don't have response to the question.

Table 50. Proposed Infrastructure Project

Proposed Infrastructure Project	Count	Percentage
Road Improvement	13	27.1
Electricity	12	25.0
Housing Project	1	2.1
Establishment of Hospital	2	4.2
Community Devt. Projects	3	6.3
No Answer	17	35.4
Total	48	100.0

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Other Recommend Projects to be considered in the SDMP

This last question of the survey intends to identify other priority projects for the barangay that can be funded through ATN 5-Year SDMP. However, the results reveal that similar to other suggestions above, the same program or projects have been repeated in this question. These priority projects are; electricity (20.6%), employment (9.5%), road improvement (9.5%), improvement of water system and supply (9.5%), establishment of school at remote sitios (9.5%), and livelihood project (7.9%).

Table 51. Other Projects to be considered in the SDMP

Other Proposed Project	Count	Percentage
Employment	6	9.5
Establish School at Remote Areas	6	9.5
Improve Water Supply	6	9.5
Electricity	13	20.6
Health center	3	4.8
Livelihood Project	5	7.9
Road improvement	6	9.5
Scholarship	1	1.6
Feeding Program	1	1.6
Relocation Site for affected Farmers	2	3.2
No Answer	14	22.2
Total	63	100.0

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4. Social Impact Assessment

The first cycle of ATN Holdings Inc. Aggregates Project 5-Year SDMP formulation needs planning framework and process to become strategic and programmatic. The relatively small amount of SDMP funds may not be enough to establish community development program but rather settle for provisions as additional assistance for existing development programs of the barangay and municipal local government units. It will require deliberate approach to anchor the SDMP provisions to broader programmatic interventions and initiatives in Barangay Macabud. This can be achieved by involving the barangay and municipal LGU, representatives of different sectors and local organizations in the preparation of annual SDMP.

Based on the data gathered, the priority development projects identified were related to health, livelihood, education, and infrastructure. Respondents in the survey and interviewee during the KII have conveyed their immediate issues, concerns, challenges experienced and their perceived solutions to the various problem. The SIA matrix below illustrates the findings and assessment in this study.

Table 52. SIA Matrix

Category	Community Issues/Challenges Encountered	Perceived Solution	Current Situation	Potential Contribution of SDMP
Health	<ul style="list-style-type: none"> • Accessibility of health facility • Not satisfied with the health quality services • Insufficient supply of medicines • Lack of water source • No existing line from MWSS • Garbage 	<ul style="list-style-type: none"> • Establish additional health center at remote sitios • Free medicines • Free medical consultation • Establishment of hospital • Establishment of potable water source • Feeding program 	<p>Community members from remote sitios are complaining primarily about the accessibility of the lone health center situated at the barangay proper.</p> <p>Insufficient supply of medicines and services in general did not satisfy the respondents as reflected in the survey.</p>	<p>The SDMP provisions to health care service providers and facilities can contribute to achieving positive results in terms of access to quality healthcare service. From the supply end, any form of aid given to supplement the current capacities of health workers and facilities such as community health stations can be linked to better performance. This is important given the design of the country’s health care system</p>

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	<ul style="list-style-type: none"> Existing water sources are far from the residential area Some springs were already affected by quarry Dust pollution Noise pollution 			in the rural areas being devolved and community-based.
Livelihood and Employment	<ul style="list-style-type: none"> Lack of work opportunity No training for livelihood projects Livestock pest/virus problem No financial capital to establish small enterprise business Job qualification Loss of farmlots to quarry operation 	<ul style="list-style-type: none"> Livelihood program Employment Capital loan Establish a cooperative 	Additional source of income is a perennial problem as conveyed in the survey. Majority of the respondents in the survey have no source of income while 22.2% are earning a monthly income ranging from 1,001-5,000.	<p>Livelihood program have to be included in the SDMP. Asset-building is the most probable approach to livelihoods development in the area that will focuses on strengthening existing and available assets such as human, social, physical, financial, and public assets to create or facilitate sustainable means of living.</p> <p>The company have to prioritize employment from the barangay.</p>
Education	<ul style="list-style-type: none"> Elementary and High School location is far from remote sitios Financial problem Transportation cost of students from house to school 	<ul style="list-style-type: none"> Establishment of additional school at remote sitios Scholarship program Free education 	Accessibility to school facility is the main complain of the respondents in the survey as well as financial capability to send their children to better school and enroll them in college.	Establishment of new school is not plausible because of limited SDMP funds. However, provisions of assistance to the schools both elementary and high school, and child development center will contribute to the enhancement of teaching methods and learning

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				<p>experience. Provision of equipment, school supplies and materials for teachers and the schools will help improve the students' overall schooling experience.</p> <p>College scholarship could be granted to deserving students from indigent families for mining related courses through the development of mining technology and geosciences budget.</p>
<p>Infrastructure</p>	<ul style="list-style-type: none"> • Bad road condition • Poor water system • Distance of water source from residential area • No budget for electrification • No budget for establishment of water system 	<ul style="list-style-type: none"> • Road improvement • Electricity • Improve water system 	<p>Issues on the current road condition is repeatedly raised in the survey. Although there is already on-going road projects, for them the development is very slow.</p>	<p>While concreting project is at the development stage. Assistance through regular road repair and maintenance could be the possible contribution of ATN Holdings Inc. SDMP. Regular maintenance of road will facilitate the mobility of people coming in and out of the barangay as well as the transport of goods and products. It will also result to a perceived sense of safety (equating to a perception of accidents being less likely to happen). It will also result to an immediate relief in terms of mobility and access to safe road networks, it will accommodate the</p>

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			<p>Improved water system is another demand. The current water source of the community is deep well and spring, however its accessibility with regards to distance is the problem by the majority.</p> <p>Large area in the barangay have no electricity. Since 2009, the Sangguniang Barangay of Macabud has a pending request to the Provincial Government of Rizal for electrification but it requires PhP24 million expenditures as estimated by MERALCO.</p>	<p>differentiated safety needs of its users particularly the PWDs, older persons, women traveling with children, children and pregnant women.</p> <p>In the absence of MWSS water line in Sitio Laan, establishment of a water reservoir or water tank would be of help for better access to safe and potable water.</p> <p>This problem could not be addressed through SDMP due to financial requirement. In the future, ATN Solar Project is the possible solution to the electrification needs in the barangay.</p>
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F. RECOMMENDATION

From the gathered and analyzed data of the SIA, the following recommendations are presented for ATN Holdings and its partners in the SDMP formulation and management may consider in the programming and planning of the 5-Year SDMP and Annual SDMP. Recommendations for enhancing the Information, Education, and Communication (IEC) strategies and optimizing the utilization of funds allocated for Development of Mining Technology and Geosciences are also indicated in this section.

1. SDMP Formulation and Management

The following are recommended for the effective SDMP planning and management.

- a. Ensure participatory planning, monitoring and evaluation processes to facilitate collective rationalization and prioritization of suggested program/projects/activities and foster strategic company-community partnerships.
- b. Explore and establish strategic partnerships and networking options with government agencies and institutions, NGOs, Foundations and private sector institutions for resource mobilization and resource sharing, synchronized service and program delivery, and knowledge exchange; and
- c. Due to relatively small SDMP budget, the following is recommended:
 - Invest on developing small-scale but high impact interventions by linking SDMP with existing, community development programs initiated by government, non-government and private organizations.
 - Rationalize the selection of beneficiaries by setting clear and agreed upon guidelines for targeting and prioritization.
 - Strategically utilize CSR Programs to supplement SDMP and by providing assistance to various requests from communities.

2. Establish Community Relations Office

The proponent have to establish the Community Relations Office (CRO) to lead the implementation and monitoring of SDMP. CRO is responsible for building and maintaining the harmonious relationship between the company and host communities and implement the functions of the Office. The CRO is also tasked to solicit and manage the issues and concerns of the impact and neighboring communities with regards to safety, health, environment and social aspects of the companies operation. This Office will be in-charge of conducting environmental scanning, planning, project consultations, management implementation, monitoring and evaluation of the SDMP as well as other Corporate Social Responsibility (CSR).

3. Monitoring and Evaluation

For the effective implementation of the SDMP P/P/As, the following monitoring and evaluation approach are recommended:

- a. Conduct annual formative review or evaluation process in the first four years of SDMP implementation and a terminal / summative evaluation by year 5. Formative reviews are means to track gains and gaps in the implementation of programs. The results of which then provide bases for adjustments or reprogramming when needed. The summative evaluation answers directly the questions of: "Did we achieve our targets?", "In what ways did we

achieve our targets?”, and / or “Why did we not achieve our targets?”. Having these review processes during and after SDMP implementation bridges the process gap between project reporting and social impact assessment with the former focusing on the outputs and the latter on impacts. What is missing is the process which help determine outcomes or intermediate results. This missing link is what this specific recommendation wishes to address.

- b. Establish clear baselines and progress indicators. This will be the bases for tracking and summing up achievements, outcomes and impacts (both positive and negative).
- c. Set-up a multi-sectoral monitoring and evaluation team such as a Community Technical Working Group (CTWG) to ensure partnership and communities active participation a Community Technical Working Group (CTWG) shall be formed which will be composed by the CRO, representatives from the different sectors from the impacted barangay such as; Barangay Chairman, School representative, Barangay Health workers, and head of sectors and local organizations present in the area. The CTWG will be tasked to assist in the formulation and review of the Annual SDMP, formulate guidelines on the submission and approval of projects for funding and implementation, actively participate in the quarterly monitoring, and attend the CTWG regular meetings to evaluate and discuss issues and concerns affecting the implementation of the P/P/A.
- d. The team then leads the audit processes prior to MGB’s quarterly monitoring. This mechanism promotes transparency, trust amongst stakeholders, and increases the partner beneficiaries’ level of appreciation and understanding of SDMP.
- e. Establish internal monitoring mechanisms for ComRel. This strategy can be used as the ComRel’s way of checking the actual utilization and effectiveness of the PPA provided particularly before the actual MGB monitoring. It is important to note that “monthly internal monitoring of the ASDMP shall be done jointly by the CRO and representatives of the host and neighboring communities to determine the level of implementation of the PPAs in accordance with the ASDMP.” (DAO 2010-21, Chapter XIV, Section 136-D, p87). At the same time it is also a manner of establishing the routine of being seen in the community and an opportunity to open communication lines with the stakeholders.

4. Enhance Community Engagement

In the perspective of deliberately utilizing SDMP both as an entry point and a platform for building a strong and active community-company relations, the company has to create venues for discussion and consensus-building rather than as battlefields. The community relations office have to acquire a skilled community engagement facilitators in addition to the task as SDMP administrators. A sustained good relationship with the community will ramify ATN’s engagement in Barangay Macabud.

The following recommendations have to be considered to intensify community engagement:

- a. Establish an Information Education and Communication (IEC) Program containing community engagement plans and communications strategy. The objectives of which may be: to provide communities with correct, relevant and up to date information on mining laws, company’s operations and its environmental and social programs.
- b. Increase company presence in community and participation in community-related activities. This will help boost the company’s identity and is fundamental for building

community's brand awareness. This strategy will also keep the ComRel in the loop and get an accurate feel of the community towards ATN.

- c. Identify a pool of official company representatives who will be dealing with community leaders. This strategy may further enhance the communication line between company and community and develop community-company relationships rather than community-specific person-based collaborations. This will mean spreading out the responsibility of company representation to several individuals instead of just one or two employees.
- d. Delegate qualified IEC personnel to effectively implement and represent the company in the community. This strategy may, however, require specific actions from the Human Resource Department as it might entail recruitment and hiring and/or training of current ComRel staff.
- e. Invest time, resources and competent personnel for consensus-building. This means being deliberate in the conduct of dialogue and consultation sessions with the community through its representative groups and institutions, and in establishing feedback mechanism for community members to directly communicate with the company on matters concerning SDMP and the broader mining operations of ATN.

5. Increase SDMP budget

To be able to have a better impact to community development, it is recommended to provide additional SDMP budget to fulfill some of the priority development needs of Barangay Macabud. The 1.5% of the companies projected operating expenses is the minimum budget requirement for SDMP implementation as mandated by law. It can be inferred that SDMP can contribute in achieving the following outcomes:

- Access to quality healthcare service
- Improved mobility and access to safe road networks
- Enhanced teaching methods and learning spaces in schools
- Enhanced capacities of institutions, groups and individuals
- Asset building for livelihoods development

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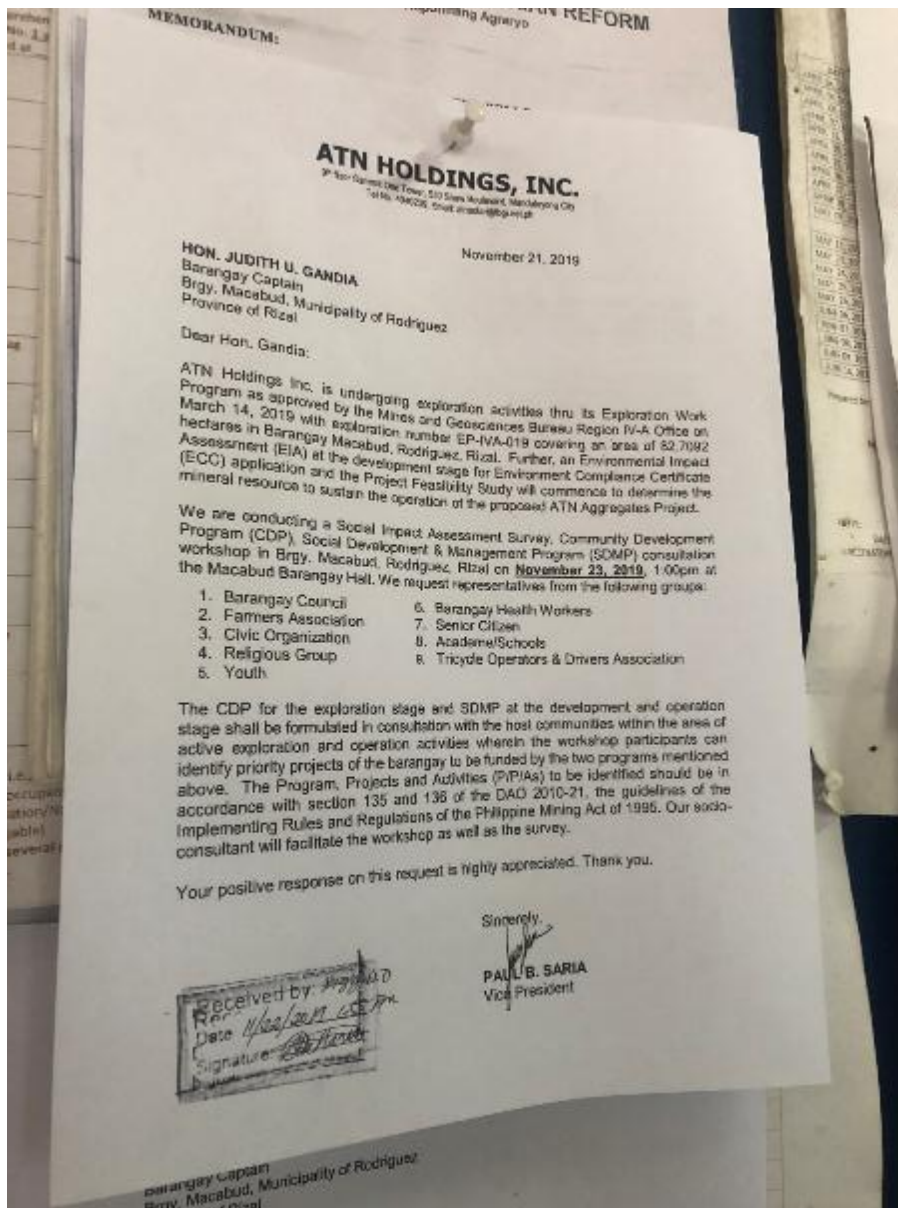
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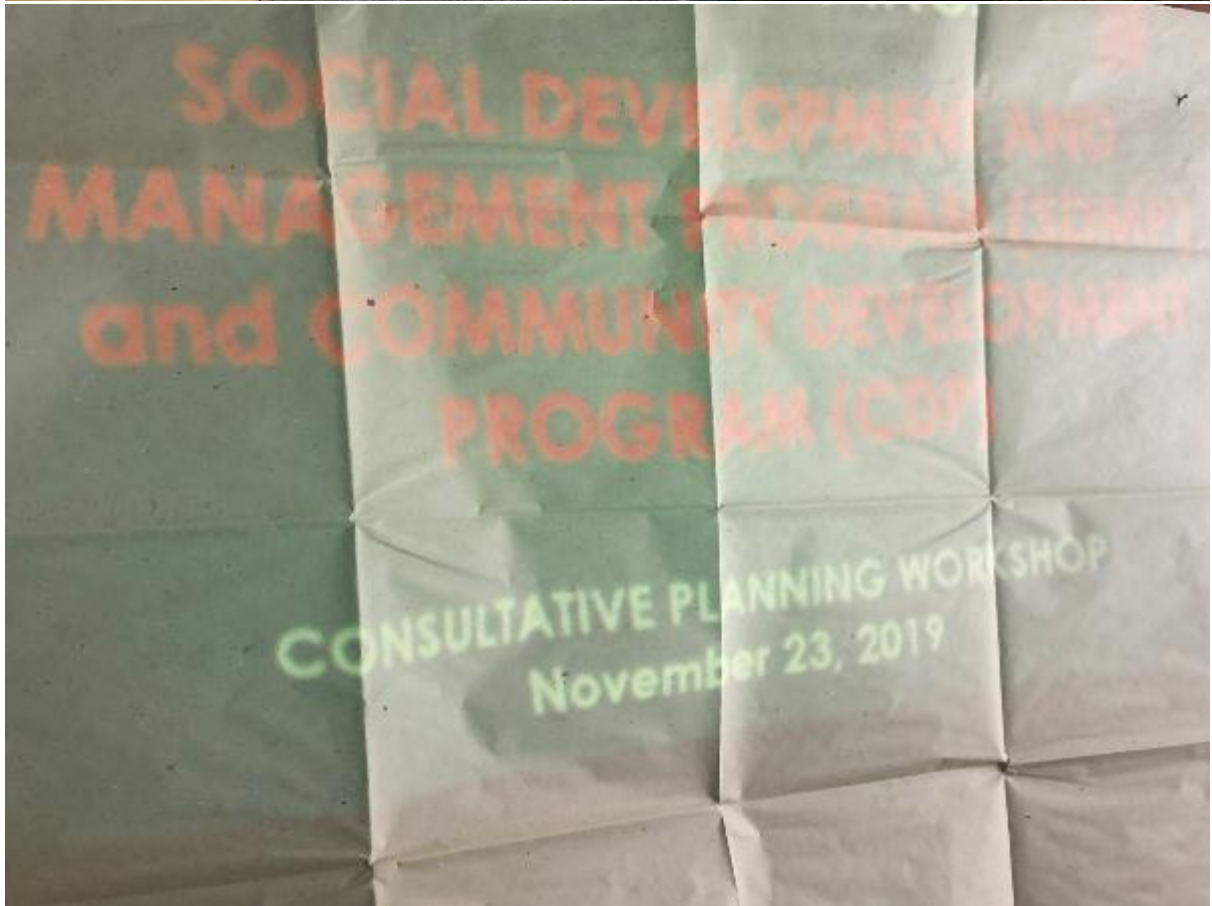
H. Annexes

1. Photo Documentation

a. SDMP Consultation



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b. Sample of Answered Survey Questionnaire

ATN HOLDINGS INC.
SOCIAL IMPACT ASSESSMENT AND SDMP SURVEY QUESTIONNAIRE

OK

Pangalan: Marita B. Estanislao
 Address: sitio Loan
 Purok: _____ Barangay: Macabud

A. KAALAMAN TUNGKOL SA INIINTERBYU (QUESTIONS TO THE RESPONDENT):

- Edad/Gulang: 74
- Kasarian: Lalaki Babae
- Lugar ng kapanganakan Aklan
- Katayuan sa lipunan (Civil Status): Dalaga/binata may asawa balo/biyudo/biyuda hiwalay
- Relihiyon (Religion): Catholic Protestant INC Born Again Islam Others _____
- Posisyon sa pamilya (Role in the Family): Ama Ina anak Iba pa. Tukuyin _____
- Antas ng pinag-aralan (Educational Attainment): Wala Elementary High School
 College – Undergraduate. Kurso _____ College Graduate. Natapos _____
 Vocational Graduate. kurso _____

B. KAALAMAN TUNGKOL SA PAMILYA (FAMILY INFORMATION):

- Source of Income:
 May trabaho, Saan _____ wala
 Walang trabaho, ano ang pinagkakakitaan _____ nag titinda
- Monthly Income/Buwanang Sahod/Sweldo:
 < 1,000 1,001–5,000 5,001–10,000 10,000–15,000 15,001–20,000 More than 20,000
- Bilang ng taon na nanirahan dito: 1 2 3 4 5 6 7 10 9 10 Higit pa _____
- Bilang ng dami sa pamilya: 1 2 3 4 5 6 7 10 9 10 Higit pa _____
- Mayroon bang ibang pamilya na nakatira sa inyong bahay: Hindi Oo, ilan? _____

C. HOUSING INFORMATION:

- Ano ang klase ng inyong bahay: nipa/bamboo nipa/wood nipa/concrete GI roof/wood
 GI Roof/concrete mixed iba pa _____
- Sarili bang pag-aari ang lupang kinatatayuan ng inyong bahay? Sarili Inuupahan/nag-abang/magkano ang upa/pila _____ Atbp. _____
- Saan nanggaling ang inyong tubig? Sariling linya batis/sapa/ilog balon bukal poso ibang paraan _____ igib Gaano kalayo ito sa inyong bahay _____ 20 Mt
- May sarili ba kayong linya ng kuryente? Meron. Magkano ang binabayad _____
 Wala, bakit wala at ano ang ginagamit sa halip na kuryente _____ Solar
- Gamit sa Pagluluto Uling Kahoy Gaas LPG Gas Kuryente Iba pa _____
- Mayroon ba kayong palikuran (toilet): Meron wala, saan gumagamit _____
- Paano ninyo tinatapon ang inyong basura? Sinusunog Kinokolekta ng Garbage Truck Others Binabaon

D. HEALTH INFORMATION

- May nagkasakit ba sa inyong pamilya nitong nakaraang limang (5) taon? Meron, anong klase ng sakit _____
Trangkaso/LBM Wala _____
- Mayroon bang Barangay health center sa inyong lugar? Oo, gaano kalayo sa inyong bahay _____
 wala _____
- Sapat ba ang serbisyo at gamot sa Barangay health center Oo hindi iba pa _____
- Saan kadalasan nagpapatingin ang mga maysakit? health center/government hospital pribadong ospital/clinic
 albularyo iba pa _____

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E. KAALAMAN SA KAPALIGIRAN (ENVIRONMENTAL AWARENESS)

24. May alam ba kayong problema sa pangkapaligiran dito sa inyong lugar? Mayroon, ano ito karayante / kalsada / konte Pagkaubus ng matataniman Wala
25. Mayroon na bang ginagawa ang mga kinauukulan para mabigyan ng lunas ang mga problema nabanggit? Oo, ano ito Hindi sapat Wala
26. May napapansin ba kayong mga pagbabago sa inyong kapaligiran nitong nakalipas na limang (5) taon? Mayroon, ano ito Pagkaubus ng matataniman Wala

SOCIAL DEVELOPMENT AND MANAGEMENT PROGRAM (SDMP) QUESTIONNAIRE

27. Anu-ano ang inyong mga suliranin patungkol sa Pangkabuhayan o Pagkakakitaan at ano ang mga kadahilanan?
Walang Trabaho at malayo sa kabayanan
28. Anu-anong training ang mga kailangan ng mga organisasyon sa inyong barangay at bakit?

29. Anu-ano ang inyong suliranin patungkol sa Edukasyon at ano ang mga kadahilanan?
Malayo sa iskwelahan
30. Anu-ano ang inyong suliraning patungkol sa Pangkabuhayan o Pinagkakakitaan at ano ang mga kadahilanan?
Walang mapasukang Trabaho at kung meron na man malayo
31. Anu-ano ang inyong suliranin patungkol sa Tubig at ano ang mga kadahilanan?
walang mapag ibigan na malapit
32. Anu-ano ang mga suliranin patungkol sa Infstruktura at ano ang mga dahilan?
Hindi maayos ang kalsada
33. Anu-anong klaseng programa ang sa palagay ninyo ay dapat bigyang pansin na tutugon sa Pangkabuhayan?
a) _____
b) _____
c) _____
d) _____
Bakit? _____
34. Anu-anong klaseng programa ang sa palagay ninyo ay dapat bigyang pansin na tutugon sa pagtaas ng antas ng kaalaman at kasanayan?
a) Magkaroon ng malapit na Paaralan
b) _____
c) Magkaroon ng koryente at Tubig
d) Maayos ang kalsada
Bakit? _____
35. Anu-anong klaseng programa ang sa palagay ninyo ay dapat bigyang pansin na tutugon sa Edukasyon at Kultura?
a) (Paaralan)
b) (Center)
c) _____
d) _____

Bakit? _____

36. Anu-anong klaseng programa ang sa palagay ninyo ay dapat bigyang pansin na tutugon sa Pangkalusugan?

a) _____
b) May malapit na Center
c) _____
d) _____

Bakit? _____

37. Anu-anong klaseng programa ang sa palagay ninyo ay dapat bigyang pansin na tutugon sa pagpapatibay ng Komunidad?

a) Maayos na kabubayan
b) _____
c) _____
d) _____

Bakit? _____

38. Anu-anong klaseng programa sa palagay ninyo ang dapat pagtutuhan ng pansin ng kumpanya patungkol sa Infrastructure Project at support services?

a) _____
b) Kalsada / Koryente
c) _____
d) _____

Bakit? _____

39. Anu-anong klaseng programa pa ang sa palagay ninyo ang maaring tugunan ng kumpanya?

a) _____
b) Magkaroon ng Paaralan
c) Koryente
d) Tubig
Center
Trabaho

Bakit? _____

Signature M.E. Marita Estanislao Date: Nov 21 2019

Interviewer's Name and Signature _____ Date: _____

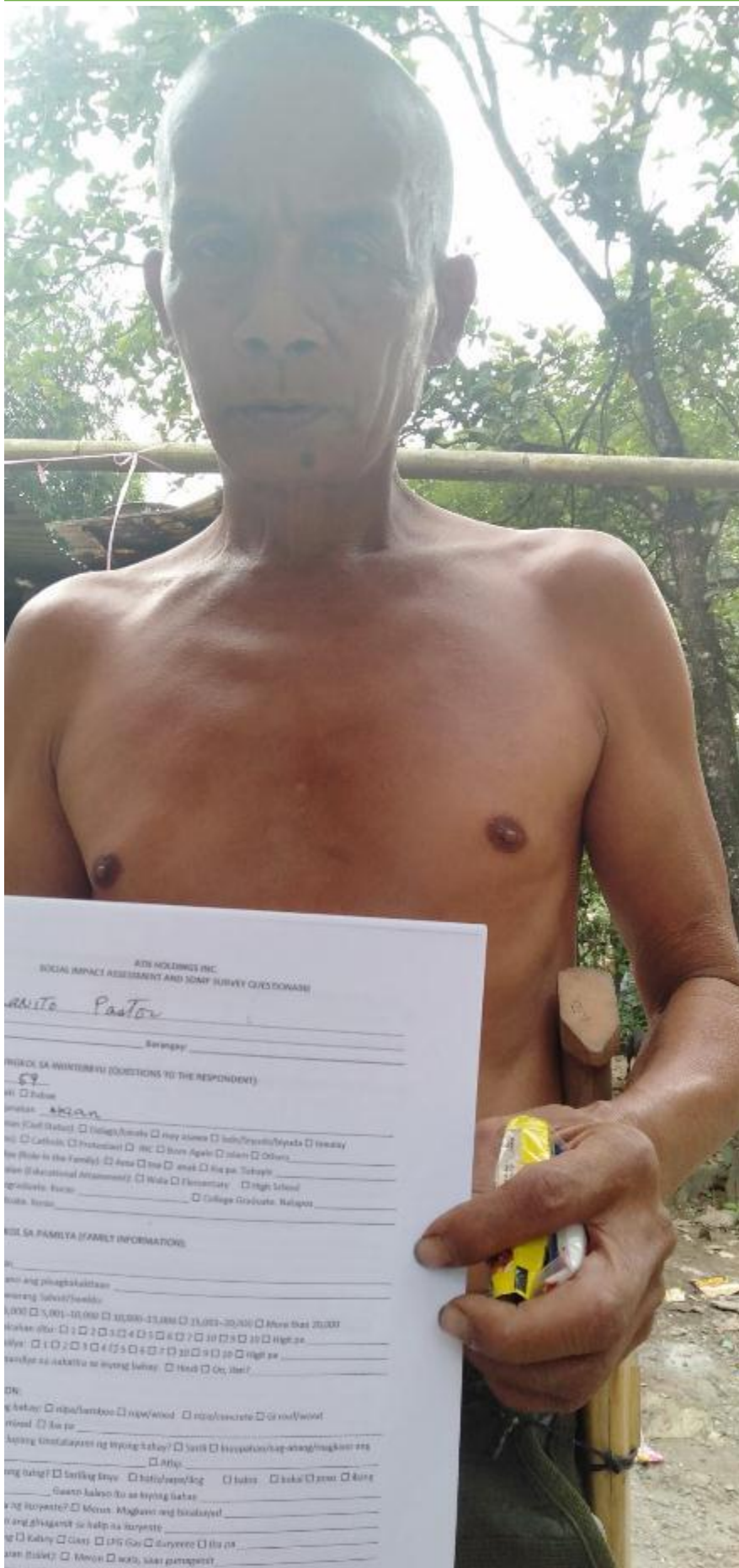
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c. Perception Survey



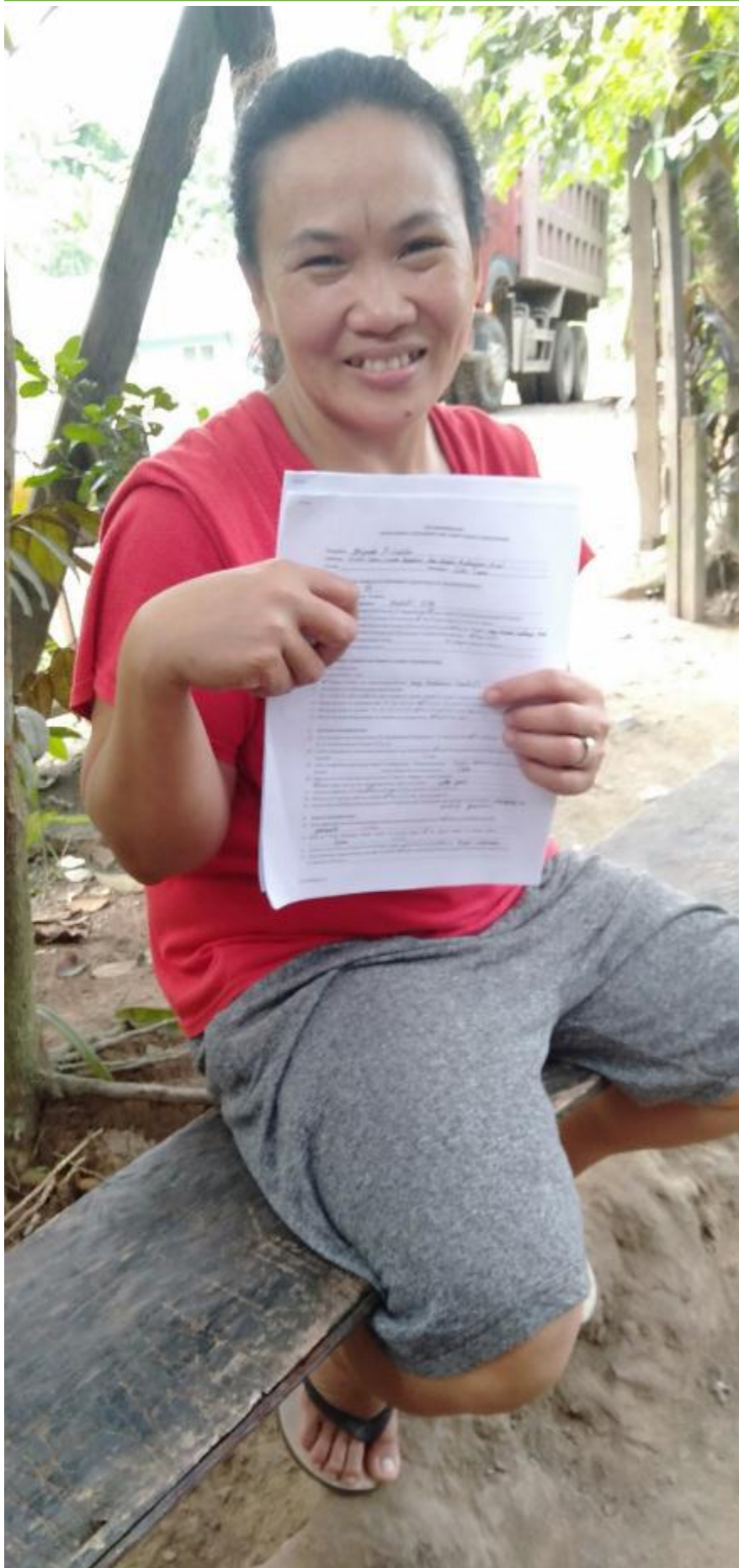














d. Copy of SDMP Presentation

ATN HOLDINGS INC.

SOCIAL DEVELOPMENT AND MANAGEMENT PROGRAM (SDMP), and COMMUNITY DEVELOPMENT PROGRAM (CDP)

CONSULTATIVE PLANNING WORKSHOP
November 23, 2019

SOCIAL DEVELOPMENT MANAGEMENT PROGRAM

The primary objective of the SDMP is to help create responsible and self-reliant communities capable of developing, implementing and managing:

- community development programs,
- projects and activities in a manner consistent with the principles of sustainable development.

DAO 2010-21 Section 135-136

- As prescribed by law, mining companies are required to allot 1.5% of their operating cost to assist government, particularly the LGUs in the development of the host and neighboring communities to promote the general welfare of the inhabitants living therein.

DAO 2010-21, Sec. 134

Operating cost-

specific costs of producing a saleable product on a commercial scale incurred in the calculation of the net income before tax. This includes all costs and expenditures related to mining/extraction and treatment/processing (inclusive of depreciation, depletion and amortization), exploration activities during operation stage, power, maintenance, administration, excise tax, royalties, transport and marketing, and annual progressive/environmental management.

- ▶ In the case of an operating mine, the permit holder is required to submit to the MGB Regional Office a sworn statement of its previous year's operating costs within 60 days after the end of each calendar year as basis for the SDMP.
- ▶ In the case of new mining operations, the basis for the initial SDMP implementation shall be the operating costs estimates contained in the approved Mining Project Feasibility Study.

BUDGET ALLOCATION

**SDMP = 1.5% OF COMPANIES
OPERATING COST**

**CDP = 10% OF EXPLORATION
COST**

SDMP COMPONENTS BUDGET ALLOCATION

SDMP/CDP COMPONENTS	ALLOCATION OUT OF TOTAL SDMP COST (1.5% of Operating Cost)	ALLOCATION OUT OF TOTAL SDMP COST (10% of Exploration Cost)
Development of Host and Neighboring Community (DHNC)	75% of 1.5%	75% of 10%
Information, Education and Communication (IEC) Program	15% of 1.5%	15% of 10%
Development of Mining Technology and Geosciences (DMTG)	10% of 1.5%	10% of 10%

SDMP Credited activities for Social Expenditures

Credited activities for the Development of Host and Neighboring Communities (DHNC)

1. Human resource development and institutional building;
2. Enterprise development and networking;
3. Assistance to infrastructure development and support services;
4. Access to education and educational support programs.
5. Access to health services, facilities and health professionals; and
6. Protection and respect of socio-cultural values

SDMP- Credited activities for the Development of Mining Technology and Geosciences

1. Basic and applied research on mining technology, geosciences, and advanced studies related to mining, to be conducted by qualified researchers
2. Expenditures for scholars, fellows and trainees, including grants for dissertations, on mining technology and geoscience and related subjects;
3. Expenditures on equipment and capital outlay as assistance for research and educational institutions.

SDMP- Credited activities for Information Education and Communication (IEC)

1. Establishment, enhancement, and maintenance of information and publicity centers where stakeholders can access information on the performance of a mining project;
2. Publication of IEC materials on social, environmental, and other issues relative to mineral resources development and responsible mining operations;
3. Expenditures for continuing public awareness and education campaigns;
4. Expenditures on equipment and capital outlay as assistance to the institutionalizing public awareness and education on mining technology and geosciences.



THANK YOU!

Prepared by:

Diosdado R. Parreño Jr.
Socio Consultant

8.2 Photo Documentation

8.2.1 Gathering of Secondary Data



Figure 12. Rodriguez Municipal Planning and Development Office



Figure 13. Legislative Office, Rodriguez Rizal

**ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP**




Figure 14. Office of the Vice Mayor of Rodriguez, Rizal



Figure 15. Office of the Municipal Disaster Risk Reduction Management

Prepared by:



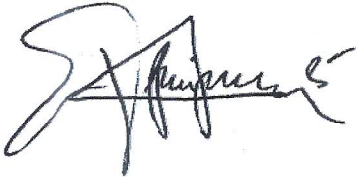
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Approved by:



Engr. Elmer P. Delmiguez

CRO, ATN Holdings Inc.

Noted by:



Paul B. Saria

Vice President

ATN Holdings Inc.