

2019-2021

2-Year Community Development Program



ATN HOLDINGS INC.

February 2020

Table of Contents

SUMMARY	4
I. INTRODUCTION	6
1.1 Exploration Project Background	6
1.1.1 Project Name, Address of Contractor and Contact Person	6
1.1.2 Exploration Project Description	6
1.2 Overview of the CDP	9
1.2.1 Rationale	9
1.2.2 Goals and Objective	10
1.2.3 CDP Methodology	10
1.2.4 Process and Approval	11
1.0 SITE PROFILE	11
1.1 Geographical Location	11
1.2 Physiography - Slope, elevation and terrain characteristics, etc.	12
1.3 Natural Drainage System	14
1.4 Climate Type	14
1.5 Rainfall Pattern	15
2.0 GENERAL DESCRIPTION OF ENVIRONMENTAL/SOCIO-ECONOMIC AND CULTURAL CONDITIONS	16
3.1 Environmental Conditions	16
3.1.1 Land-use Pattern	16
3.1.2 Availability and Source of Water Supply	18
3.1.3 Natural Calamities and Disasters	18
3.2 Socio-Economic Conditions	19
3.2.1 Demographic Information	19
3.2.2 Income sources	22
3.2.3 Labor availability and distribution	23
3.2.4 Transport, market and credit facilities	25
3.6 Cooperatives and other organizations	25
3.2.5 Access, Control and Land Ownership	26
3.2.6 Social Services and Support Programs	26
3.3 Cultural Conditions	28
3.3.1 History of the area	28
3.3.2 Migration and ethnic groupings	29
3.3.3 Leadership patterns	30
3.3.4 Social structures related to decision-making and conflict resolution	30

3.3.5	Peace and Order	30
4.0	DISCUSSION OF THE RESULTS OF COMMUNITY ASSESSMENT	30
4.1	Community Issues/Problems/Concerns	31
5.0	CDP DEVELOPMENT FRAMEWORK	32
5.1	Development Strategies.....	32
5.1.1	Access to Education and Educational Support Programs	32
5.1.2	Access to Health Services, Facilities, and Sanitation Support	33
5.1.3	Enterprise Development and Networking.....	33
5.1.4	Assistance to Infrastructure Development and Support Services.....	33
5.2	Program/Project/Activity Implementation.....	34
5.2.1	Fund Source	34
5.2.2	Setting up systems, policies, and procedures	34
5.2.3	Monitoring of Program/ Project/Activity.....	36
5.2.4	Evaluation of Program/Project/Activity.....	36
6.0	MATRIX PRESENTATION OF PROGRAMS/PROJECTS/ACTIVITIES	37
7.0	BIBLIOGRAPHY.....	39
8.0	ANNEXES.....	40
8.1	Copy of the Approved Exploration Work Program	40
8.2	Photo Documentation.....	45
8.2.1	CDP Consultation Meeting, April 12, 2019	45
8.2.2	Gathering of Secondary Data and Interview	47
8.4	Minutes of the Consultation Meeting, April 12, 2019	49
8.5	Minutes of the SDMP/CDP Consultation Meeting (including photos), November 23, 2019... ..	52
8.6	Summary of Key Informant Interview	62
8.7	Attendance of the Consultation Meeting.....	63
8.8	Copy of ATN Social Impact Assessment.....	64

List of Tables

Table 1. Technical Description	6
Table 2. Exploration Work Program Cost Estimate	9
Table 3. Land Area of Rodriguez by Barangay	11
Table 4. General Land Use in Rodriguez Rizal	16
Table 5. Total Area of Barangay Affected by Various Hazards	18
Table 6. Population Distribution by Barangay	19
Table 7. Land Distribution by Barangay	19
Table 8. Demographic Profile of Barangay Macabud	20
Table 9. Distribution of Labor, Barangay Macabud	24
Table 10. List of Local Organizations	25
Table 11. Community Issues/Problem/Concerns and Perceived Solution	31
Table 12. Programs/Projects/Activities, Timeframe and Budge Allocation	37
Table 13. Summary of Issues and Concerns During the Consultation and IEC	49
Table 14. KII Summary of Issues and Concerns	62

List of Figures

Figure 1. Tenement Map	7
Figure 2. Location Map	7
Figure 3. Location of Map of Rodriguez Rizal	12
Figure 4. Elevation Map	13
Figure 5. Waterways Map	14
Figure 6. Climate Map	15
Figure 7. Land Use Map	17
Figure 8. Population Map	20
Figure 9. Community Relations Office Table of Organization	35

SUMMARY

An Exploration Permit (EP) denominated as EP-IVA-019 covering an area of 82.7092 hectares in Barangay Macabud, Rodriguez, Rizal was entered into by and between ATN Holdings Incorporated and the Philippine Government through the Mines and Geosciences Bureau (MGB).

Republic Act (RA) No. 7942, known as the “Philippine Mining Act of 1995”, and Department of environment and Natural Resources (DENR) Administrative Order (DAO) No.2010-21, as amended implementing Rules and Regulations of RA No. 7942, requires the Contractor/Permittee to prepare a Community Development Program (CDP), in consultation and in partnership with the host communities within the area subject of active exploration activities.

Following the existing implementing rules and regulations stipulated in DAO 2010-21, the 2-Year CDP 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).

Prioritization of Program/Projects/Activities (P/P/As) for the 2-Year CDP were based on the following:

Based on needs. The needs of the community will be assessed through consultation and using the data and information from the Development Plans of the Barangays, Annual School Improvement Programs, and Community-Based Health Information System;

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 CDP.

As a result of the social impact assessment based on the consultations and data gathered, ATN Holdings Inc. recognized the needs and problems of the community leading to the development of the P/P/As to be implemented in the CDP. For the DHNC program, it is the goal of the 2-Year CDP to provide assistance to the host communities in achieving community development, consistent with the local development plans being implemented in their area. Specifically, the CDP is aimed at assisting the host barangay in:

- Improving the health condition and services of the barangay;
- Supporting elementary school to improve quality of education;
- Improvement of product yield of farming organizations; and
- Ensure sufficient domestic water supply of Sitio Laan residents.

Per DAO 2010-21, a minimum of 10% of the Exploration Work Program budget shall be allotted for the CDP. Based on the approved Exploration Work Program, a total of PhP 4,100,000.00 is allotted for the implementation of the exploration activities, thus, PhP 410,000.00 shall be allotted for the implementation of the CDP. The regulation also stipulates that the CDP shall be developed within the area subject of active exploration activities for a period of two years.

Prior to the implementation of the program, ATN shall consult again the impact barangay to secure social acceptance to support and fully implement this CDP.

I. INTRODUCTION

1.1 Exploration Project Background

1.1.1 Project Name, Address of Contractor and Contact Person

Project Name: ATN Aggregates Project Exploration Work Program

Company Name: ATN Holdings Inc.

Address: 9th Floor, Summit One Tower
530 Shaw Boulevard
Mandaluyong City
Email Address:

Contact Persons:

Deody V. Solee (Consultant)

CP No.: 09175404207

Paul B. Saria (COO)

CP No.: 09178839330

1.1.2 Exploration Project Description

1.1.2.1 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 1. 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 1. Tenement Map

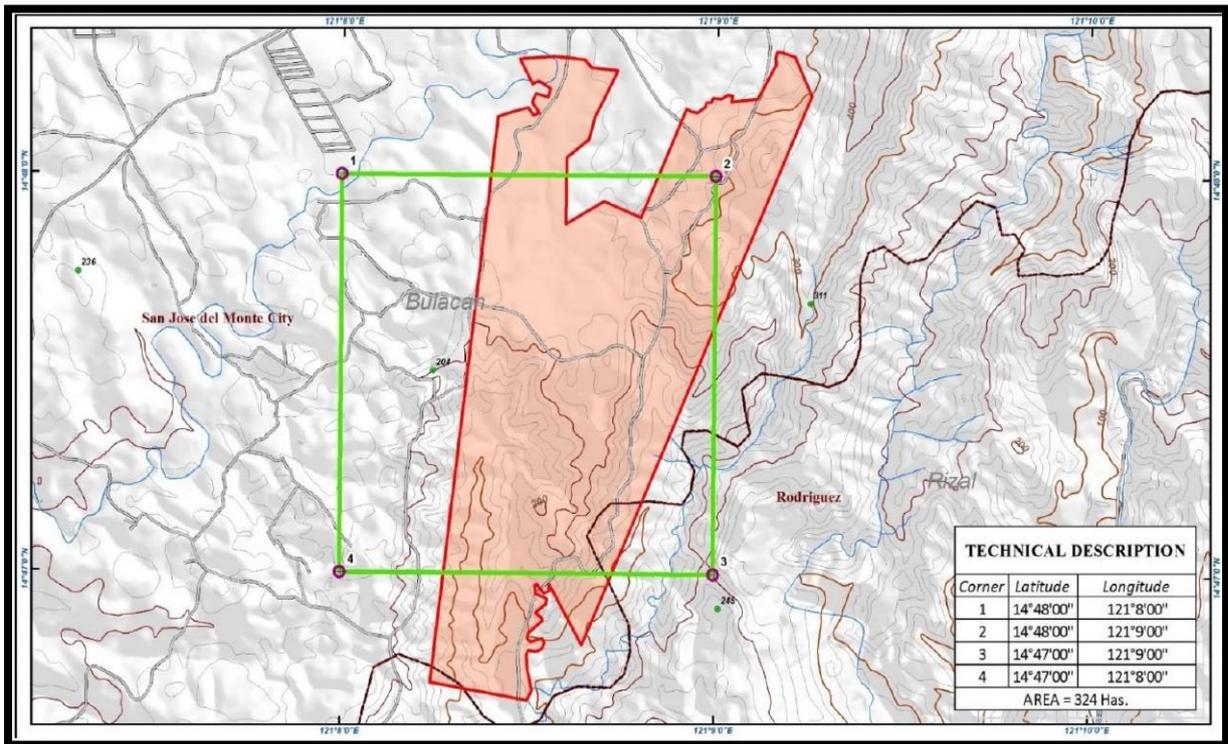
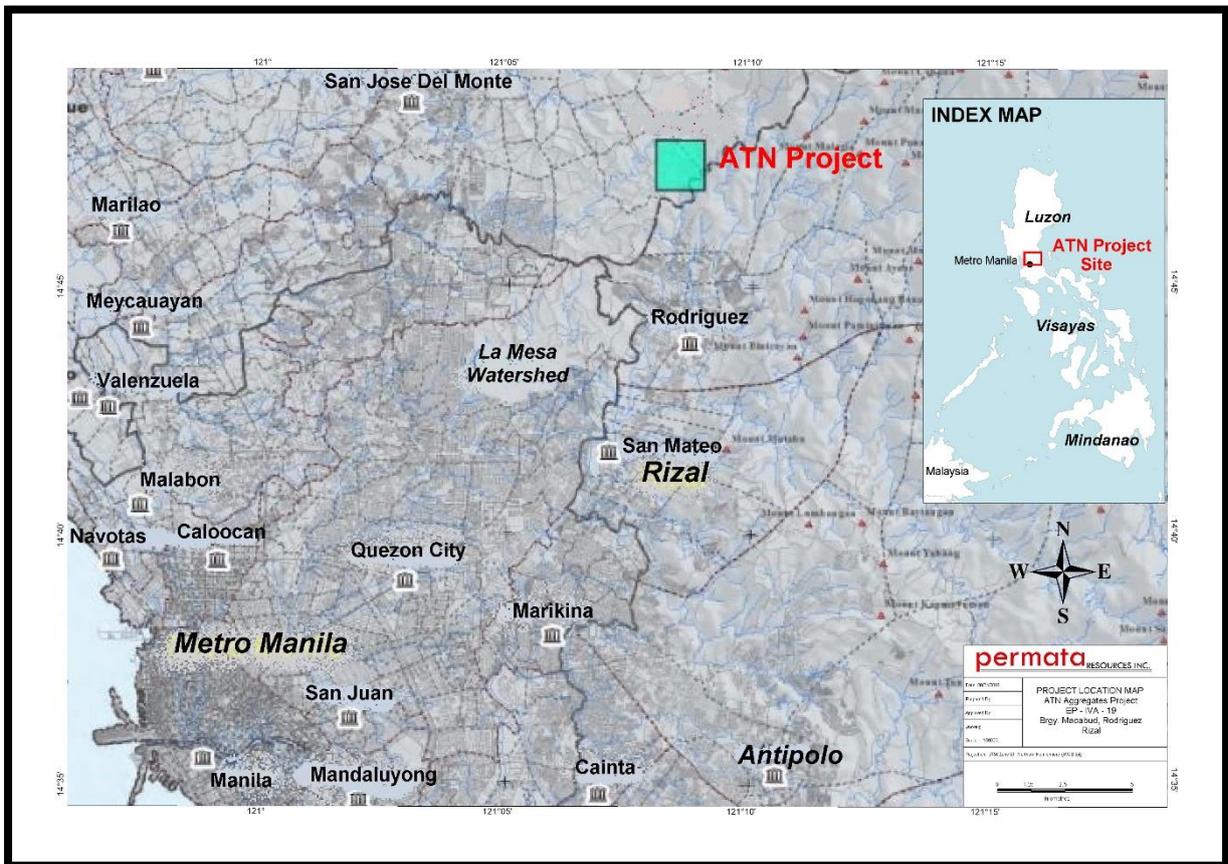


Figure 2. Location Map



1.1.2.2 Research Work

No research work shall be further undertaken. Prior to the filing of the exploration permit application, a team was commissioned by ATN to undertake a rapid geological study of the project area to determine, characterize the lithology and do preliminary basalt deposits resource estimate.

1.1.2.3 Reconnaissance/Regional Survey

There is no need for reconnaissance or regional survey of the proposed permit area.

1.1.2.4 Semi-Detailed Survey

The exploration of the proposed permit area shall proceed directly to the detailed survey.

1.1.2.5 Detailed Survey

Subsurface Investigation

Drilling

A diamond core drilling program shall be implemented to test the thickness of the soil/overburden materials and for determination of the fracture density of the basalt and andesite deposit at depth.

This activity shall be executed by a competent drill contractor which shall be using diamond core drilling rigs. Core samples will be taken, recorded and logged as the drill penetrates deeper and deeper into the ground. Each core sample may need to be split into two (2) – one (1) will be preserved and the other half will be sent to the laboratory for more detailed studies such as but not limited to engineering properties and attributes of the rock.

About ten (10) drill holes shall initially be drilled with a combined lineal meterage of 500 meters at 50 meters depth per hole.

The drilling program is scheduled for six (6) months or less including the drill plan preparations and procurement of a drilling contractor, with an estimated budget of PhP3.0 Million, more or less.

Drill hole location maps, logs and cross-sections will be produced showing the outcome of the drilling activity.

Laboratory Analyses

Additional laboratory tests shall be conducted for the engineering and other lithological properties of the rocks and aggregates products contemplated to be produced. The materials to be tested shall be derived from the drill core samples and other fresh rock exposures. A minimum of three (3) sets of samples shall be tested for:

- Petrographic analysis by the Mines and Geosciences Bureau;
- In order to decide the suitability of the aggregate for use in pavement construction, following tests shall be carried out:
 - Crushing test.
 - Abrasion test.
 - Impact test.

- Soundness test.
- Shape test.
- Specific gravity and water absorption test.
- Bitumen adhesion test.

The estimated cost of laboratory tests may amount to PhP 100,000.00 and may take three months to undertake.

1.1.2.6 Report Writing and Interpretation of Report

Report writing and interpretation of all the results of the geological mapping, laboratory tests and subsurface investigation shall be undertaken during the remaining month of the permit that will be granted. The Final Resource Report shall be prepared by a Competent Person to be eligible as support document in the filing of the Declaration of Mining Project Feasibility to comply with the regulations.

The exploration work program shall be managed and implemented by a competent experienced geologist with an estimated cost of PhP 500,000.00 for the duration of the exploration activities.

A budget of PhP 500,000.00 is likewise allocated for the project administration that include project management, supervision and monitoring.

1.1.2.7 Estimated Exploration Cost

Table 2. Exploration Work Program Cost Estimate

Activity	Cost (PhP)
Diamond core drilling	
Contract drilling (10 holes x 50m/hole x PhP 6,000.00/m)	3,000,000.00
Laboratory Test (lump sum)	100,000.00
Final Report (Competent Person)	500,000.00
Project Administration (consultant’s fee, transportation, etc.)	500,000.00
Total	4,100,000.00

1.2 Overview of the CDP

1.2.1 Rationale

The Philippine Mining Act of 1995 as well as its Revised Implementing Rules and Regulations, Department of Environment and Natural Resources Administrative Order No. 2010-21, requires holders of an Exploration Permit to develop and implement a Community Development Program (CDP) to contribute to the sustainable development of the communities within their exploration project area and its implementation shall be supported by a fund equivalent to a minimum of ten percent (10%) of the approved Exploration Work Program budget.

The CDP shall be developed in consultation and in partnership with the host communities within the area subject of active exploration activities and may include Program, Projects and Activities (P/P/As) identified in accordance with section 135 and 136 hereof. The CDP shall be submitted to the Regional Office concerned, for approval, within six (6) months upon registration of the approved Exploration Permit.

The CDP will cover and implemented in Barangay Macabud, the lone community that will be affected by the exploration project.

1.2.2 Goals and Objective

It is the goal of the CDP to institutionalize basic mechanism in sharing the benefits of mining exploration to host communities through a concrete and meaningful socially-oriented program. Specifically, this project aims to improve the living conditions of the residents within the affected barangays and to develop, to foster and to maintain a harmonious relationship between the company and the community.

The primary objective of ATN is to provide opportunities by assisting in the development of host communities situated within its area of operation in accordance to the Community Development Program to promote the general welfare of the inhabitants living therein.

1.2.3 CDP Methodology

1.2.3.1 Secondary Data Gathering

Both primary and secondary data were gathered in order to have an assessment on the general conditions of the covered barangays with focus on the demographics, socio-economic, cultural, and environmental aspects. These documents were gathered from the Local Government Unit offices. ATN participatory rapid appraisal was also used as reference for the formulation of the program.

1.2.3.2 Community Consultation

On April 11, 2019, a consultation with the host barangay was conducted in order to present and discuss with the host barangay the approved Exploration Work Program and Community Development Program of ATN Holding Inc. The occasion was attended by the representatives of the project proponent, MGB RIV-A headed by Mr. Sonny Villar, and members of the barangay council. In this meeting the preparation of Community Development Program (CDP) has been discussed where the council was advised to hold a workshop to identify their barangay priority projects that can be funded by the CDP.

On November 23, 2019, an SDMP and CDP 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. Two of these is the implementation of the SDMP during the operation period and CDP during the exploration period. The minutes of the meeting is attached in Annex 8.5.

1.2.3.3 Social Impact Assessment

ATN prepared a 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.

On November 18-22, a random community/social development perception survey was conducted. It was carried out in Sitios within Barangay Macabud. Respondents that were 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.

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 and this CDP. The SIA document is attached in Annex 8.8.

1.2.4 Process and Approval

An approved CDP is required prior to commencement of the implementation of the approved Exploration Work Program under the renewed Exploration Permit/ Exploration Period or approved Pre-Feasibility/Feasibility Period. ATN prepared the CDP in consultation and in partnership with the host communities within the area subject of active exploration activities. It shall be submitted to the Regional Office concerned, for approval, within six (6) months upon registration of the approved Exploration Permit.

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.

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.

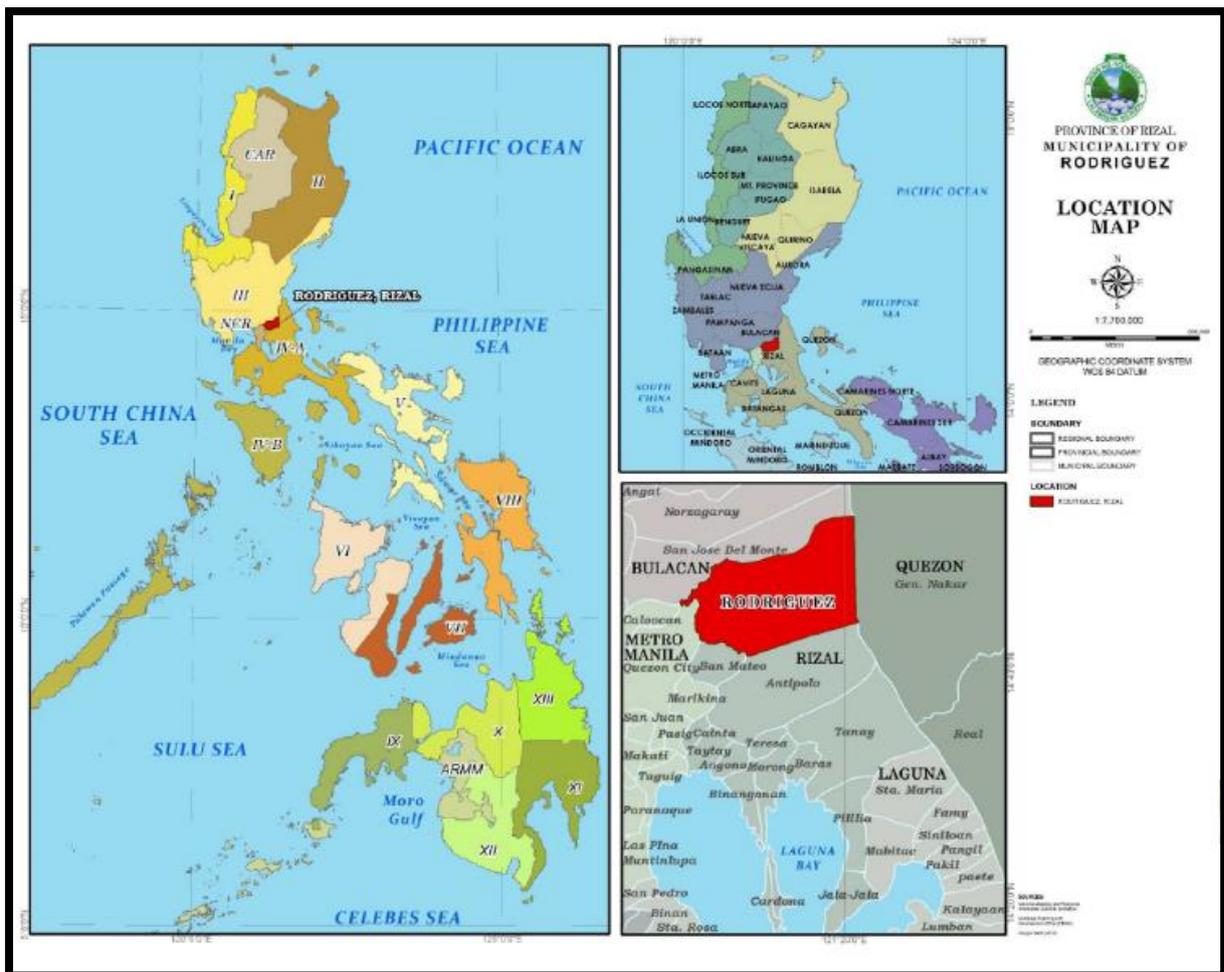
Barangay Macabud which is the host barangay of the exploration project is located in the northernmost part of Rodriguez and bounded in the north by Norzagaray, Bulacan, in the west by San Jose Del Monte, Bulacan; Pangarap, Caloocan City and Quezon City and in the south by Barangay San Jose of Rodriguez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

Table 3. 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



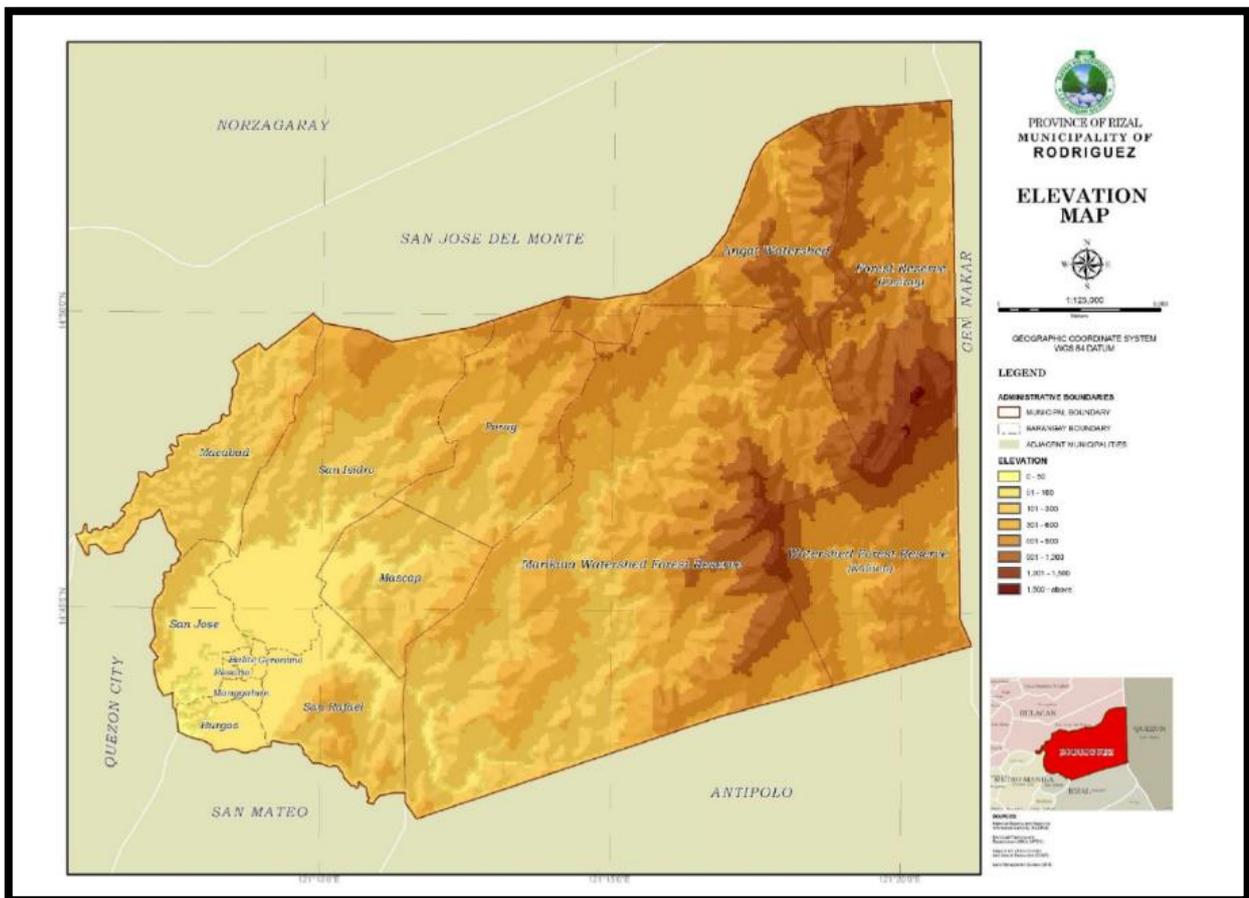
1.2 Physiography - Slope, elevation and terrain characteristics, etc.

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. Payacin865 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



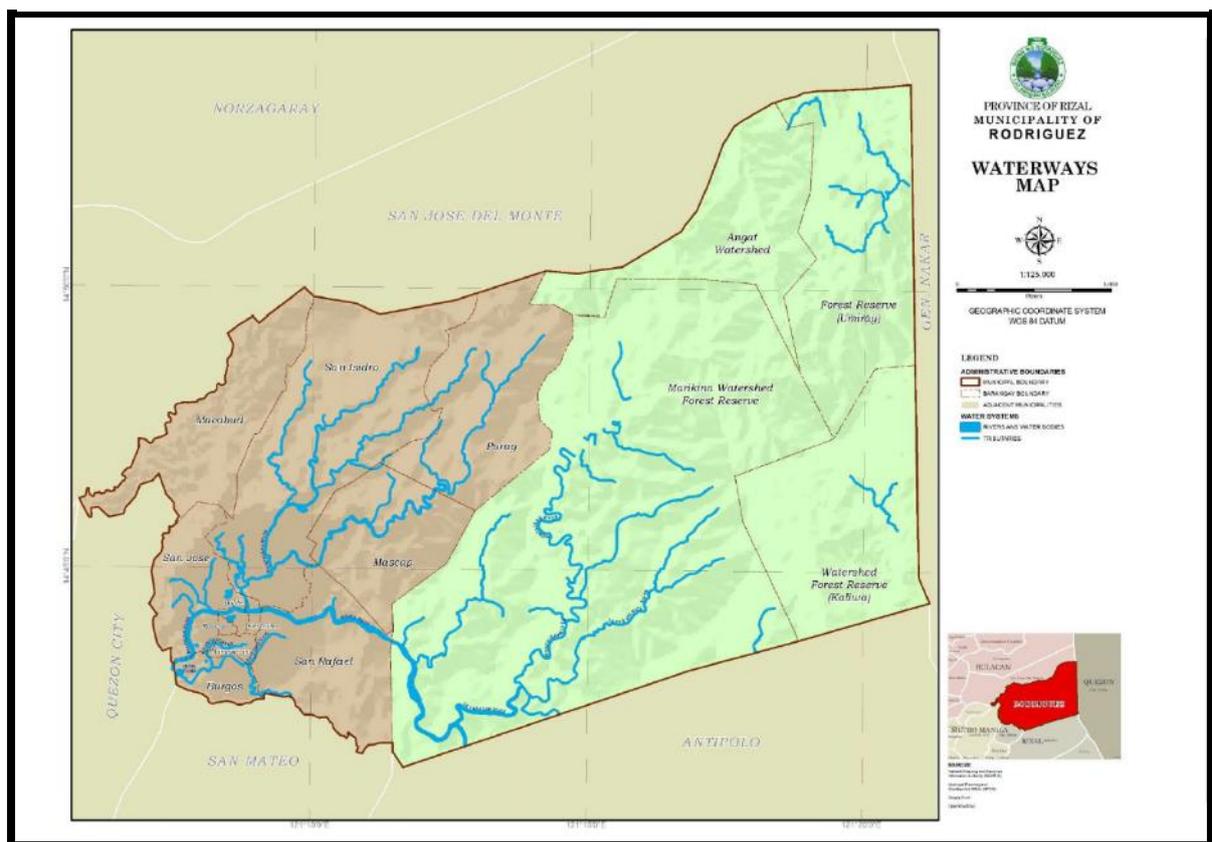
1.3 Natural Drainage System

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

Figure 5. Waterways Map

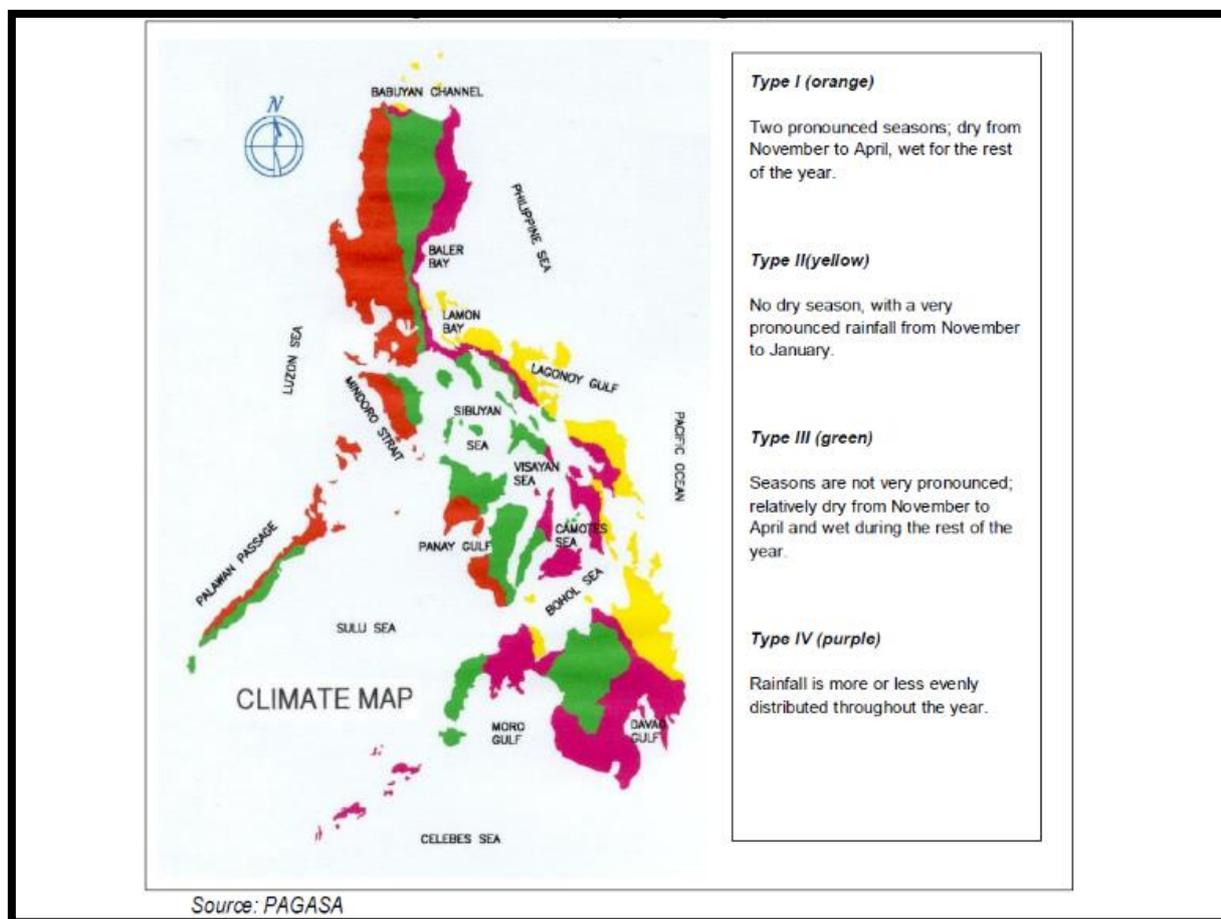


1.4 Climate Type

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

3.1 Environmental Conditions

3.1.1 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 up 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.

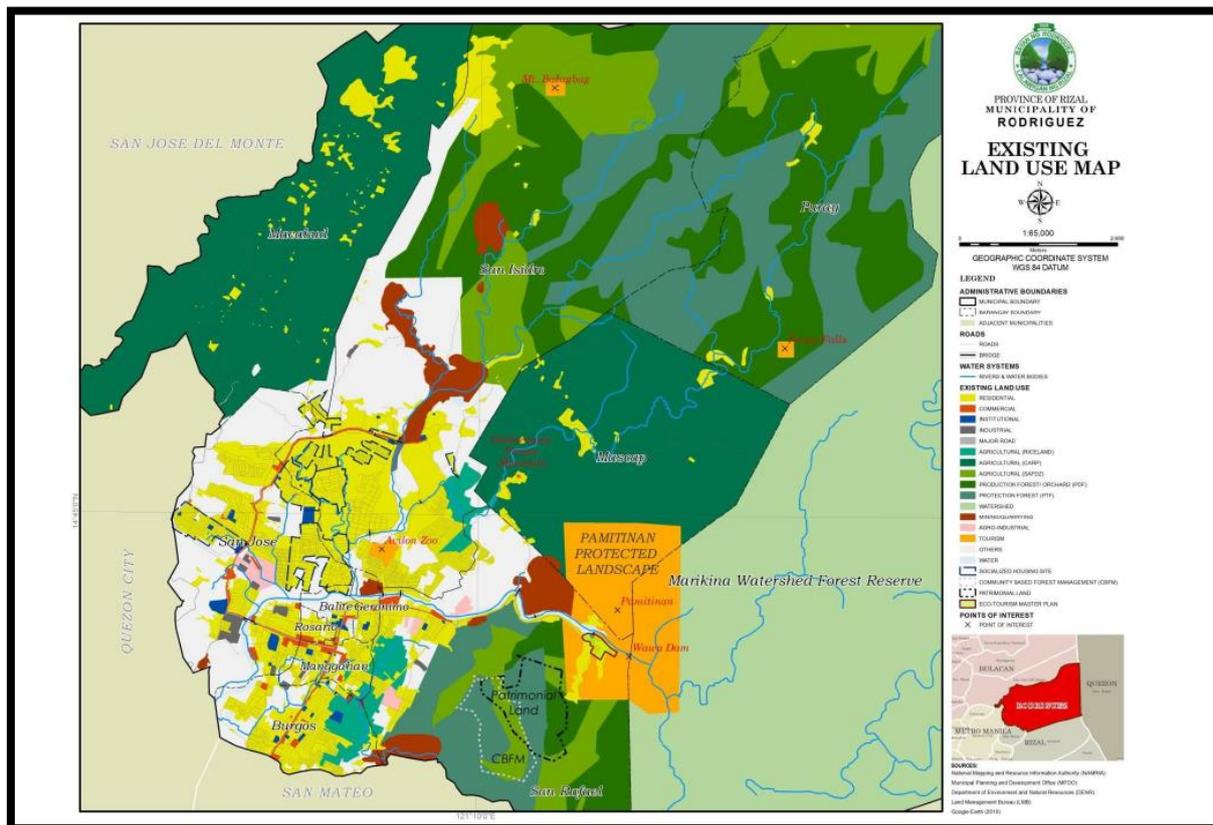
As shown in the table and map below, all lands with a slope of 0% to 18% in Rodriguez combine for 8,300 hectares. Based on slope, elevation, landform, soil quality, and geology, previous CLUP documents identified only 6,211 hectares in Rodriguez as ‘developable’ or fit for human settlement. The rest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

Table 4. 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.

3.1.2 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.

3.1.3 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 5. 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

3.2 Socio-Economic Conditions

3.2.1 Demographic Information

3.2.1.1 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 6. Population Distribution by Barangay

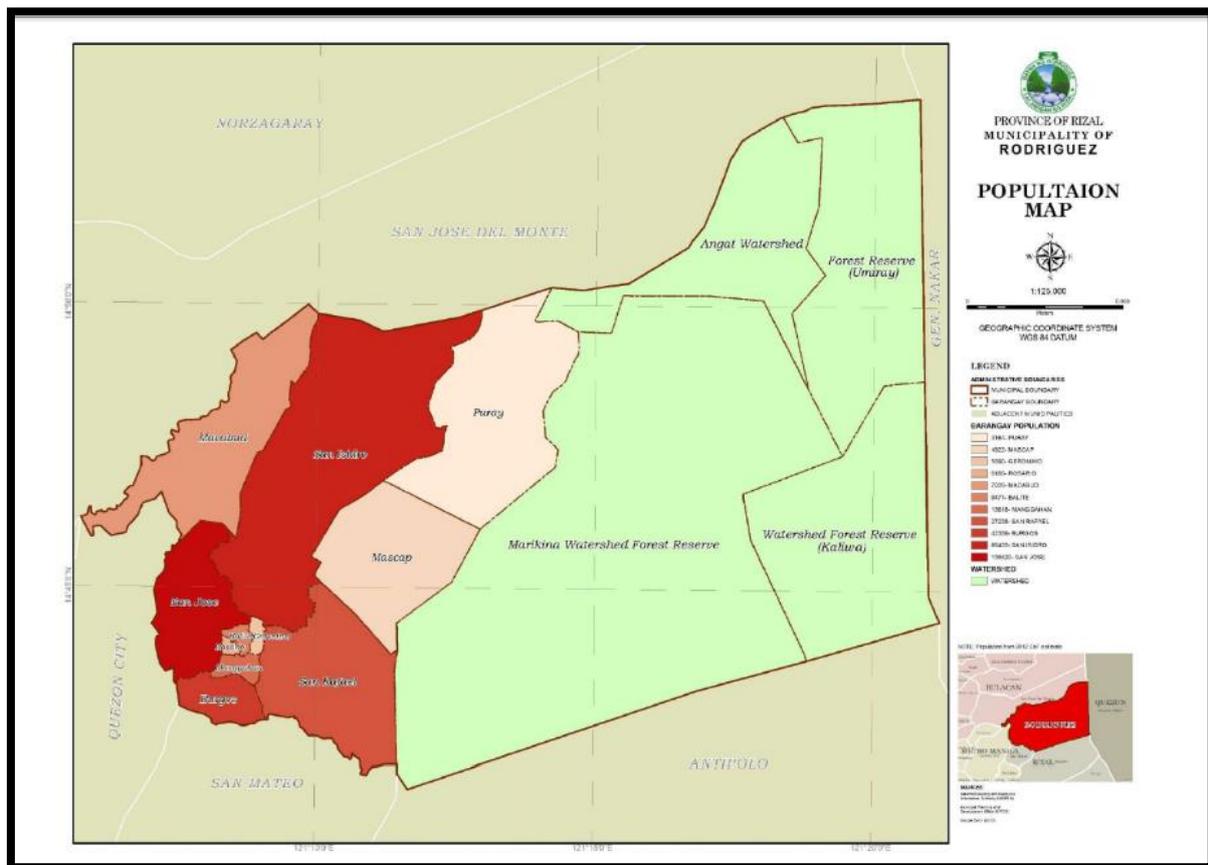
Barangay	Census Year					
	1990	1995	2000	2007	2010	2015
Balite (Pob.)	6,182	6,943	7,849	8,827	9,114	9,983
Burgos	15,483	19,536	25,146	34,032	38,554	44,100
Geronimo	3,365	3,830	4,584	4,450	5,417	5,554
Macabud	2,021	2,327	3,124	6,338	6,605	9,707
Manggahan	5,862	7,031	8,220	11,170	12,557	13,913
Mascap	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

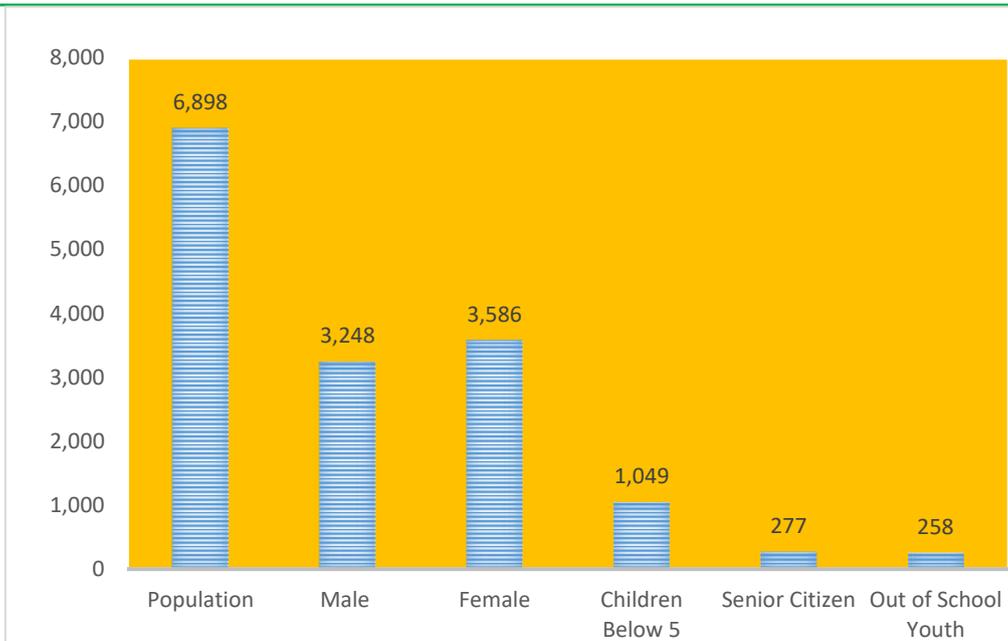
Table 7. Land Distribution by Barangay

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





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.

3.2.1.4 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.

3.2.1.5 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.

3.2.2 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.

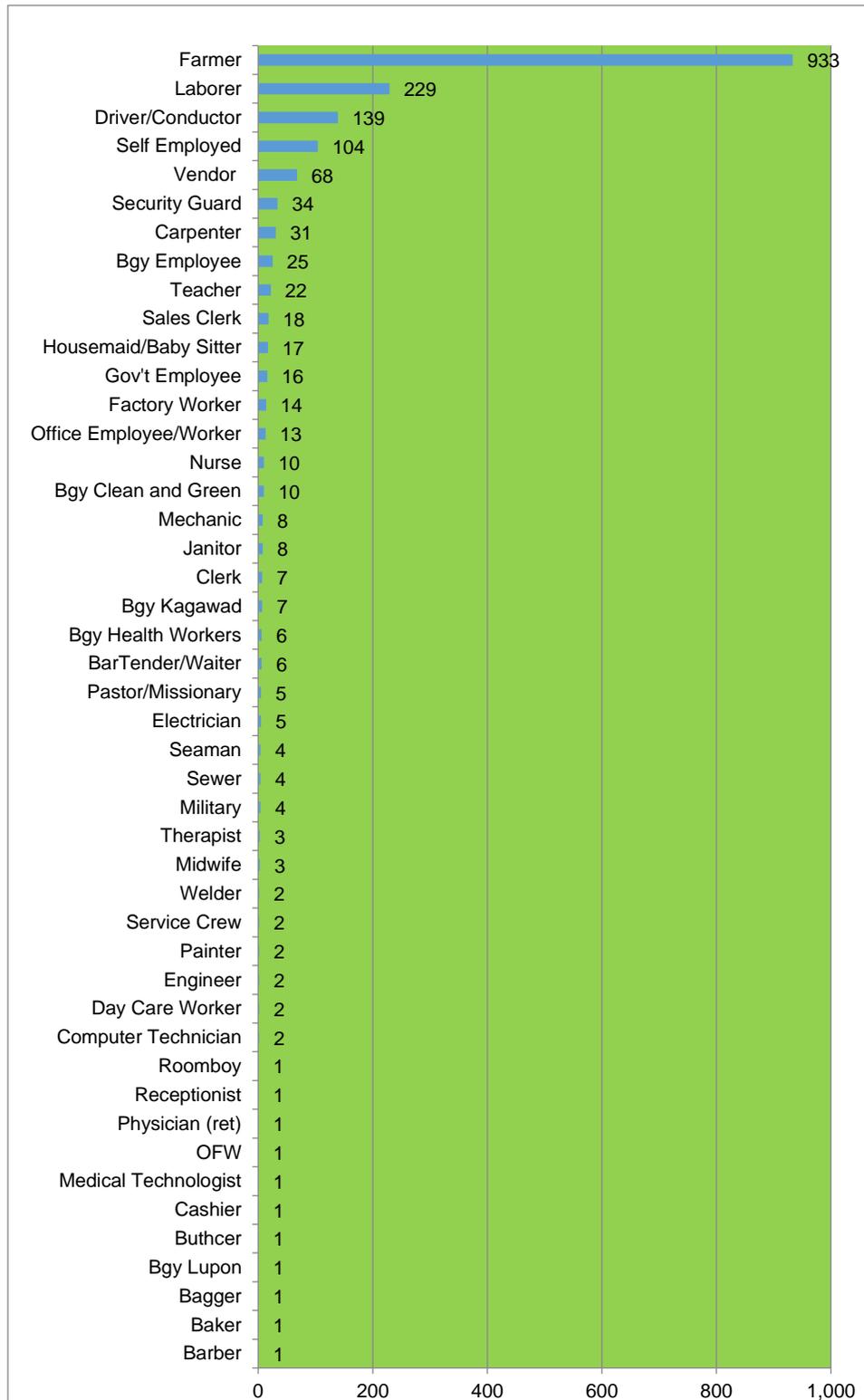
Other sources of income in Rodriguez where people are employed are Tourism, Mining and Quarrying, Manufacturing, Trade, Commerce and other services.

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.

3.2.3 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 9. Distribution of Labor, Barangay Macabud



3.2.4 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 Lhuiller, 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 10. 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, 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 gastro-intestinal 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.

3.3 Cultural Conditions

3.3.1 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.

3.3.2 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.

3.3.3 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.

3.3.4 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.

3.3.5 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

Poverty is being experienced within the host barangay because of the low income condition of the households. The Barangay has a total income of PhP 9,000,000, but generally 55% is allocated for personnel services, 20% for development projects, 5% for calamity funds, 10% for youth development, and the rest for other activities or projects.

Macabud is considered an agricultural community with land under the Comprehensive Zoning Ordinance of Rodriguez. The top five occupations 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. Based on the data obtained, 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.

With regards to education there is one public elementary school, one public high school and one private school (Saint Joseph Christian Academy). There are daycare centers in Sitio Karahume, Sitio Licao-Licao, Sitio Harangan and Sitio Laan that caters to children below six years of age.

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.

The 2-Year exploration program and ATN Aggregates Project is expected to operate with a projected mine life of fifteen (15) years. Without the project, the community will remain dependent on agro-forestry where most of the respondents in the perception survey result with gainful employment and livelihood have an income of below P5,000 per month. Current social services being provided by the LGUs and the private sector will continue in its existing slower phase because of limited resources.

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 summarized in the Table below.

Table 11. Community Issues/Problem/Concerns and Perceived Solution

Topic	Issues/Problem/Concerns	Proposed Solution
Health	<ul style="list-style-type: none"> • Unsatisfied with the barangay health center's services • Location of barangay health center is far from sitios • Most of sick person's go to government owned hospital 	<ul style="list-style-type: none"> • Establish additional health center • Free medical consultation • Provision of medicines
Livelihood	<ul style="list-style-type: none"> • Lack of work opportunity • No financial capital 	<ul style="list-style-type: none"> • Livelihood training and program • Capital loan

	<ul style="list-style-type: none"> • Livestock pest/virus problem • Lack of educational attainment 	<ul style="list-style-type: none"> • Employment
Education	<ul style="list-style-type: none"> • Lack of school facilities (location of elementary and high school is farm from sitios) • Financial problem 	<ul style="list-style-type: none"> • Establish additional school near the remote sitios • Free education • Scholarship • School assistance
Infrastructure	<ul style="list-style-type: none"> • Bad road condition • Insufficient water supply 	<ul style="list-style-type: none"> • Road improvement • Electricity • Improve water system

5.0 CDP DEVELOPMENT FRAMEWORK

5.1 Development Strategies

Based on the existing implementing rules and regulations stipulated in DAO 2010-21, the 2-Year CDP will be implemented mainly on the Program for the Development of Host and Neighboring Communities (DHNC). Prioritization of Program/Projects/Activities (P/P/As) for DHNC was based on the following:

Based on needs. The needs of the community will be assessed through consultation and using the data and information from the Development Plans of the Barangays, Annual School Improvement Programs, Infrastructure Development Needs and Community-Based Health Information System;

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 CDP.

For the DHNC program, it is the goal of the 2-Year CDP to provide assistance to the host communities in achieving socio-economic development, consistent with the local development plans being implemented in their area.

5.1.1 Access to Education and Educational Support Programs

Goals

To improve the standard of education in the host community.

Objective

To provide opportunities for students to have access to better education thus enhancing higher educational attainment and employment potentials.

Strategies/Activities

Provision of school supplies and/or improvement of school facility

Responsible Person/Group

CRO, CTWG, PTA, Macabud Elem. School, BLGU

5.1.2 Access to Health Services, Facilities, and Sanitation Support

Goals

The enhance health services and safeguard the health and well-being of the residents in Barangay Macabud.

Objective

To improve the health condition of the residents and services of Barangay Health Center.

Strategies/Activities

ATN shall provide free medicines to Barangay Health Center on semi-annual basis and conduct medical mission on the second year of the exploration activity.

Responsible Person/Group

CRO, BHW, BLGU, DOH

5.1.3 Enterprise Development and Networking

Goals

For the farming community to become self-reliant and improve the yield their farm as additional source of income.

Objective

To provide opportunities for the farming communities to improve their farm and income.

Strategies/Activities

ATN shall facilitate livelihood seminar to farming organizations in coordination with BLGU, and Municipal Agriculture Office.

ATN shall provide free seedlings and fertilizers to selected beneficiaries in Barangay Macabud.

Responsible Person/Group

CRO, Farmer's organization, BLGU, MAO

5.1.4 Assistance to Infrastructure Development and Support Services

Goals

To ensure sufficient domestic water supply of Sitio Laan residents.

Objective

To help improve the supply of drinking and domestic water of Sitio Laan residents.

Strategies/Activities

ATN shall conduct an on-site assessment of existing water system to identify the amount of work to be done and materials to be provided.

Responsible Person/Group

CRO, Sitio Leader, BLGU

5.2 Program/Project/Activity Implementation

5.2.1 Fund Source

Per DAO 2010-21, the “Revised Implementing Rules and Regulations of the Philippine Mining Act of 1995”, a minimum of 10% of the Exploration Work Program budget shall be allotted for the CDP. Based on the submitted Exploration Work Program, a total of **PhP 4,100,000.00** is allotted for the implementation of the exploration activities, thus, **PhP 410,000.00** shall be allotted for the implementation of the CDP. The regulation also stipulates that the CDP shall be developed within the area subject of active exploration activities for a period of two years.

5.2.2 Setting up systems, policies, and procedures

The approval of MGB Regional Office No. IV-A of the CDP will be the indicator to start the implementation of the planned Programs/Projects/Activities (P/P/A).

For the Program in the Development of Host and Neighboring Communities (DHNC), the CTWG will finalize the schedule of implementation of the P/P/As and prioritization will be based on the needs of the host communities.

The main features of the existing procedures 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
- Budget realignment will require justifications and proof of consultation from the concerned communities/beneficiaries.

5.2.2.1 SDMP Administration

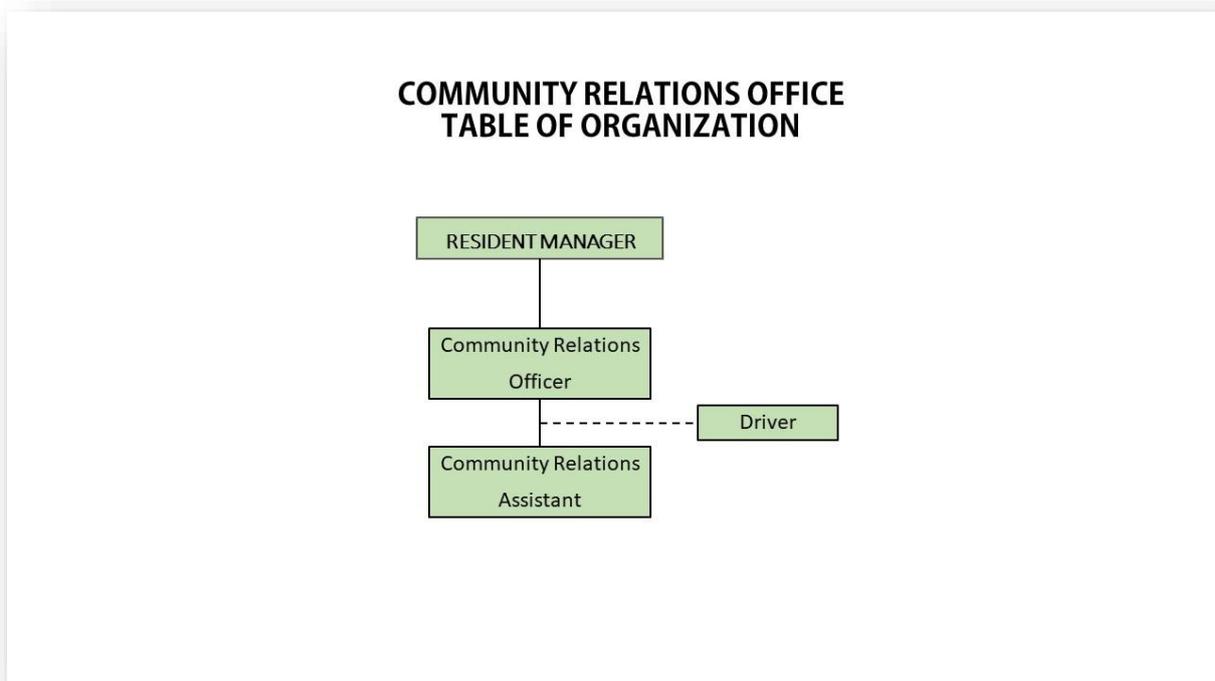
The Community Relations Office

The Community Relations Office (CRO) which will be established at the plant site is responsible for building and maintaining the harmonious relationship between the company

and the host communities. It is the duty of the CRO 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 in environmental scanning, planning, project consultations, management implementation, monitoring and evaluation. He is also assigned to prepare and submit all the CDP reportorial requirements to Mines and Geosciences Bureau (MGB). The Office is composed of one (1) Community Relations Officer, Engr. Elmer Delmiguez and one (1) Community Relations Assistant. The Community Relations Officer will report directly to the Resident Manager.

Figure 9. Community Relations Office Table of Organization



5.2.2.2 Formation of CDP 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.

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

- Assist the Community Relations Office in the implementation of CDP.
- 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.

5.2.3 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 CDP implementation stage and regular monitoring.

The monitoring of the DHNC P/P/As will be conducted by the Community Relations Officer 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 CDP 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 PROGRAMS/PROJECTS/ACTIVITIES

Table 12. Programs/Projects/Activities, Timeframe and Budget Allocation

P/P/A	Location	Stakeholders Involved	Specific Activity/Key Results	Schedule										2-Year Budget (PhP)
				1 st Year					2 nd Year					
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Budget (PhP)	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Budget (PhP)	
DEVELOPMENT OF HOST AND NEIGHBORING COMMUNITIES (DHNC)														
Access to Education and Educational Support Program														
a. Adopt-a-School Program	Brgy. Macabud Elementary School	Macabud Elem. School, Bgy, Council, Parents & students	Provision of school supplies and/or improvement of school facility					40,000					40,000	80,000.00
Access to Health Services, Facilities, and Sanitation Support														
a. Provision of medicines	Barangay Macabud Health Center	CRO, Brgy. Council, BHW, MHO, and residents	Semi-annual provision of medicines or medical equipment					40,000					40,000	80,000.00
b. Medical Mission	Barangay Macabud	CRO, Brgy. Council, BHW, MHO, and residents	Conduct of free medical check-up and provision of medicines										100,000	100,000.00
Enterprise Development and Networking														
a. Livelihood Seminar	Barangay Macabud	CRO, BLGU MAO, Farmers	Conduct of seminar with the farming organizations					20,000						20,000

**2-Year Community Development Program
ATN Holding Inc.**

b. Provision of fertilizers and seedlings	Barangay Macabud	CRO, BLGU MAO, Farmers	Provision of seedlings and fertilizers to farmers					35,000					35,000	70,000.00
Assistance to Infrastructure Development and Support Services														
a. Improvement of the water system	Sitio Laan, Brgy. Macabud	CRO, Brgy. Council, Sitio leader, Residents	Assessment of the water system and provision of materials					60,000						60,000.00
Total								195,000					215,000	410,000.00



Mr. Paul B. Saría
 COO, ATN Holdings Inc.

7.0 BIBLIOGRAPHY

ATN Exploration Work Program

Local Climate Change Action Plan by: Mayor Cecilio C. Hernandez Presented by: Vice Mayor Jonas J. Cruz

Comprehensive Development Plan 2016-2021, Municipality of Rodriguez, Province of Rizal. 2016

Social Investigation (SI) and Participatory Rural Rapid Appraisal (PRA) Report, ATN Solar Project, Barangay Macabud, Rodriguez, Rizal

Municipality of Rodriguez Comprehensive Land Use Plan. 2012-2022

<https://www.philstar.com/metro/2012/07/13/827117/wawa-dam-pushed-alternative-water-source>

https://en.m.wikipedia.org/wiki/Wawa_Dam

Aftermath of Tropical Storm Ondoy (Ketsana), September 24-30, 2009

<https://psa.gov.ph/classification/psgc/?q=psgc/barangays/045808000>

Annual Progress Report, Municipality of Rodriguez, FY 2018

Situational Analysis Report, Municipality of Rodriguez

ATN Holdings Inc. Social Impact Assessment (SIA), December 2019

8.0 ANNEXES

8.1 Copy of the Approved Exploration Work Program

Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. IVA (CALABARZON)
8/F, 1515 DENR by the Bay Bldg., Roxas Blvd., Ermita, Manila

EXPLORATION PERMIT

Date :
Exploration Permit No. : EP-IVA- 019
Permittee : **ATN Holdings, Inc.**
Address : 9th Floor Summit One Tower
530 Shaw Boulevard, Mandaluyong City

This Exploration Permit covering an area of Eighty-Two and 70.92/100 (82.7092) hectares situated in Brgy. Macabud, Rodriguez, Rizal which metes and bounds are more particularly described as follows:

CORNER	LATITUDE			LONGITUDE		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
1	14	47	0.00	121	8	0.00
2	14	47	30.00	121	8	0.00
3	14	47	30.00	121	8	30.00
4	14	47	0.00	121	8	30.00

The pertinent application for which was filed in the Mines and Geosciences Bureau (Bureau) Regional Office No. IVA (CALABARZON) on August 13, 2018, is hereby granted to ATN Holdings, Inc. in accordance with Republic Act No. 7942, otherwise known as "The Philippine Mining Act of 1995," and its Implementing Rules and Regulations: *Provided*, that areas with conflict, within ancestral lands/domains without the free and prior informed consent by the Indigenous Peoples concerned, within adequately stocked forests/proclaimed watershed forest reserves/critical watersheds, classified under the National Integrated Protected Areas System are excluded therefrom, and subject to the following **Terms and Conditions**:

1. The right to explore shall be subject to valid, prior and existing rights of any party(ies) within the area;
2. This Permit shall be for the exclusive use and benefit of the Permittee and shall, under no circumstances, be used for purposes other than mineral exploration: *Provided*, that the exercise of the rights thereunder by another entity/party shall be subject to the prior approval of the Bureau Director;
3. The term of the Permit shall be for a period of two (2) years from date of issuance thereof, renewable for like periods but not to exceed a total term of four (4) years for non-metallic mineral exploration or six (6) years for metallic mineral exploration: *Provided*, that the application for renewal of the Permit shall be filed prior to its expiration, otherwise, any renewal application filed after such expiration shall not be accepted: *Provided further*, that no renewal of the Permit shall be allowed unless the Permittee has complied with the terms and conditions thereof and has not have been found guilty of violations of any provision of the Mining Act and its Implementing Rules and Regulations: *Provided, furthermore*, that in case of failure to file declaration of mining project feasibility during the total term of four (4) years of this Permit for non-metallic minerals or six (6) years of the same Permit for metallic minerals, the Permittee may apply for further renewal of the Permit prior to the expiration of the same Permit, which may be granted by the Secretary for another

Handwritten initials or signature.

term of two (2) years for the very purpose of preparing or completing the feasibility studies, and filing of the declaration of mining project feasibility and the pertinent Mineral Agreement or Financial or Technical Assistance Agreement (FTAA) application. The complete and final exploration report shall be required in this renewal of the Permit: *Provided, finally*, That in case the Permit expires prior to the approval of the declaration of mining project feasibility or filing of the Mineral Agreement or FTAA application (after the approval of the said declaration), the said Permit shall be deemed automatically extended until such time that the Mineral Agreement or FTAA application is approved;

4. The Permittee shall submit to the Regional Office concerned, copy furnished the Bureau Central Office, within thirty (30) calendar days after the end of each semester a report under oath of the Exploration Work Program's (ExWP's) implementation and expenditures showing discrepancies/deviations, including the results of the survey, laboratory reports, geological reports/maps, subject to semi-annual inspection and verification by the Bureau Central Office/Regional Office concerned at the expense of the Permittee; *Provided*, that any expenditure in excess of the yearly budget of the approved ExWP program may be carried forward and credited to the succeeding years covering the duration of the Permit;
5. The Permittee shall submit to the Regional Office concerned, copy furnished the Bureau Central Office, a status report on the compliance with the Environmental Work Program (EWP) within thirty (30) calendar days every end of six (6) months from the issuance of this Permit;
6. The Permittee shall annually relinquish at least 20% of the permit area during the first two years of exploration and at least 10% of the remaining Permit Area annually during the renewed Exploration Period. However, if the Permit Area is less than five thousand (5,000) hectares, the Permittee need not relinquish any part thereof. In case of relinquishment, a separate geologic report shall be submitted to the Regional Office concerned, copy furnished the Bureau Central Office, with a detailed geologic report of the relinquished area accompanied by maps at a scale of 1:50,000 and results of analyses and corresponding expenditures, among others. The minimum exploration expenditures for the remaining area after relinquishment shall be based on the approved ExWP;
7. The Permittee shall submit to the Regional Office concerned, copy furnished the Bureau Central Office, a final report upon the expiration or relinquishment of the Permit or its conversion into Mineral Agreement or FTAA in a form and substance comparable to published reports of respected international organizations and shall incorporate all the findings in the Permit Area, including locations of samples, assays, chemical analyses and assessment of the mineral potential. Such report shall include complete detailed expenditures incurred in the conduct of exploration activities;
8. In case of diamond drilling, the Permittee shall, upon request of the Bureau Director/Regional Director concerned, submit to the Bureau Central Office/Regional Office concerned a quarter of the core samples which shall be deposited in the Bureau Central Office/Regional Office Core Library concerned for safekeeping and reference;
9. The exploration activities shall be carried out in a manner that will, at all, times, safeguard the environment;
10. If the Permittee applies for a Mineral Agreement or FTAA over the Permit Area, the Exploration Period under the Exploration Permit shall be considered as the Exploration Period of the Mineral Agreement or FTAA that may be issued;

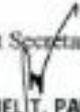
11. The Permittee shall allow the Department Secretary and Bureau Director/Regional Director concerned or their duly authorized representative/s to annually monitor and/or audit its performance, and shall not deny access to the Permit Area for said purposes;
12. This Permit may be suspended by the Bureau Director in cases of *force majeure* as defined in the Act;
13. The Regional Director concerned may, at any time, cancel this Permit for violation of the provision of the Mining Act and its Implementing Rules and Regulations or the terms and conditions of this Permit;
14. The Permittee shall strictly secure a written consent from any surface owners, occupant/s and/or concessionaire/s within the Permit Area prior to entry or conduct of any form of exploration activities therein;
15. The Permittee shall furnish a copy of the approved EWP to the *Sangguniang Panlalawigan* concerned;
16. The Permittee shall annually submit a copy of its Securities and Exchange Commission-received General Information Sheet;
17. The Permittee shall formally inform the Bureau of any change of its office address. Failure to do so shall be construed that all communications sent to its present office address are duly served;
18. The Permittee shall submit to the Regional Office concerned, copy furnished the Bureau Central Office, the proof of consultation with the *Sanggunian* concerned in the form of Resolution or Certification prior to the implementation of the approved ExWP, pursuant to the pertinent provisions of Section 23 of the Department Administrative Order (DAO) No. 2010-21;
19. The Permittee shall submit a Community Development Program within six (6) months from the registration of the Exploration Permit, pursuant to the pertinent provision of Section 2 of DAO No. 2010-13;
20. The Permittee may surrender this Permit or exercise the priority right to apply for a Mineral Agreement or FTAA over the Permit Area, which application shall be granted if the Permittee meets the necessary qualifications and the terms and conditions of any such agreement;
21. This Permit excludes commercial extraction and/or construction of infrastructures designed for mining development or mining production;
22. This Permit does not grant beneficial ownership of the minerals to the Permittee;
23. The Permittee shall assume all the exploration risks and shall not be entitled to reimbursement of its expenses;
24. The Permittee shall comply with the minimum ground expenditures during the term of the Permit, as follows:

<u>Year</u>	<u>Pesos/Hectare</u>
1	100
2	100

In case the minimum ground expenditure for the first year is not met for justifiable reasons as determined by the Regional Office concerned, the unexpended amount may be spent on the following year of this Permit. However,

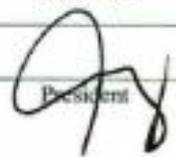
if the minimum ground expenditures for the entire term of this Permit are not met, the unexpected amount shall be paid by the Permittee and shall accrue to the Bureau to be used for mining operations in Mineral Reservations or to other purposes as may be determined by the Bureau. The failure of the Permittee to pay the said amount within the prescribed period shall be ground for the denial of any of its mining application(s) filed in the Bureau/Regional Offices concerned;

25. The Permittee shall submit to the Regional Office concerned, copy furnished the Bureau Central Office, within 30 days from receipt of this Permit the following documents:
- i. Revised EWP, taking into account the February 12, 2019 comments of the Mines, Safety, Environment and Social Development Division of the Bureau Central Office.
 - ii. Original or issuing office-certified true copy of the Transfer Certificate of Title with tabulated geographic coordinates showing that the entire permit area is privately owned, in lieu of (a) the written consent of the Department of Public Works and Highways and/or Local Government Unit concerned considering that the applied area encroached some roads and (b) the National Commission on Indigenous Peoples Certification.
 - iii. Certification attesting to the completion of posting of the pertinent Notice of Application for one week from the Municipal Government of Rodriguez, Rizal.
26. This Permit shall be subject to review by the Department Secretary.


SAMUEL T. PARAGAS
Regional Director

Regional Director

I hereby accept the terms and conditions of this permit as above stated.

ATN HOLDINGS, INC.
Permittee
TIN: _____
By: 

President


Signed in the presence of:
DONATO M. SARMIENTO
DIC, Mine Safety, Environment and
Social Development Division

(Signature over Printed Name)


PAUL S. SARRIA

(Signature over Printed Name)

ACKNOWLEDGEMENT

Republic of the Philippines _____)
Province of _____) s.s.
City/Municipality of CITY OF MARIKINA)

SUBSCRIBED AND SWORN to before me, SAMUEL T. PARAGAS
with Passport No. PS207647A issued on Dec. 1, 2017 in DFA, Manila, in his
capacity as Regional Director of the Mines and Geosciences Bureau Regional Office No.
IVA (CALABARZON) and ARSENIO T. NG, with Passport No.
_____ issued on _____ in _____, in his capacity as
President of ATN Holdings, Inc. both known to me and to me known to be the same person
who executed the foregoing instrument consisting of six (6) pages, including this
acknowledgement page, and acknowledged to me that the same is their voluntary act and
deeds.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial
Seal, this MAR 4 day of 2019.

ATTY. HENRY D. ADASA
NOTARY PUBLIC
COMMISSION # 251
IBP NO. 647427 - 01/02/10 PASIG
PTR NO. 5826687 - 01/03/19 R.C.
MCLE COMPLIANCE NO. VI-0002830 - 4/14/2022
ROLL NO. 29679

Doc. No. 409
Page No. 29
Book No. XII
Series of 2019

8.2 Photo Documentation

8.2.1 CDP Consultation Meeting, April 12, 2019



Figure 10. ATN representative Mr. Deode Solee discussing the Exploration Activities and CDP.



Figure 11. Barangay Council of Macabud



Figure 12. Engr. Elmer Delmiguez answering questions raised by the council



Figure 13. ATN Socio consultation explaining the importance of CDP in partnership with the host community

8.2.2 Gathering of Secondary Data and Interview



Figure 14. Rodriguez Municipal Planning and Development Office



Figure 15. Legislative Office, Rodriguez Rizal



Figure 16. Office of the Vice Mayor of Rodriguez, Rizal



Figure 17. Office of the Municipal Disaster Risk Reduction Management

8.4 Minutes of the Consultation Meeting, April 12, 2019

Table 13. Summary of Issues and Concerns During the Consultation and IEC

Location	Issues Raised	Concerns/Recommendation
Barangay Macabud Date: April 12, 2019	Conduct of public consultation	<ul style="list-style-type: none"> There should be proper consultation with the residents. The barangay council is being blamed by their constituents about the on-going ATN quarry project
	Land ownership issue (ATN claim VS Actual users)	<ul style="list-style-type: none"> Since ATN is already operating, the farmers agreed to accept the companies' offer to relinquish their farm lots where their house is also erected rather than receiving nothing. Accordingly, the received an amount of PhP 35,000.00 How can they resist to sign the agreement when their house is already been demolished? In the agreement, it includes the relocation of the affected farmers. Until now, no relocation site has been established.
	Conversion of ATN lot claim to the Comprehensive Agrarian Reform Program (CARP)	<ul style="list-style-type: none"> ATN lot claim was acquired from Garcia family There was a petition before to convert Garcias claim into CARP but Garcia sold it to ATN Before a boundary survey was conducted but only for ATN property and no boundary survey was carried-out for individual lots inside the claim for CARP conversion. The case is still unsolved Where is the Deed of Sale as proof that ATN acquired the property from Garcia? Where is the relocation site they have promised to the farmers?

	Road Check Point	<ul style="list-style-type: none"> • According to ATN representative, check point was established at quarry road due to thievery issue
	Road Safety	<ul style="list-style-type: none"> • ATN established a diversion road to avoid residents to enter at the crushing plant for safety reason • Put barbed wire at the perimeter to avoid outsiders to enter
	Dust Pollution	<ul style="list-style-type: none"> • Why there's no water truck? • Dust is visible even at night during full moon • Conduct of regular monitoring - e.g. air and water quality monitoring regular and water • Establish settling ponds
	Project Awareness	<ul style="list-style-type: none"> • They are confused with the exploration permit because they have an existing operation. • Permata explained that they are not familiar with the permit of the existing operation but only on the exploration permit that will eventually be converted into MPSA once the result of the exploration study is positive
	On-Going Legal Case	<ul style="list-style-type: none"> • In 2018, they put a human barricade not to allow ATN's equipment to enter in the area • The barangay council was accused by ATN as members of Anak Pawis and Kadamay. They used this as a motive to request the presence of the military in the area. • ATN filed a case against the barangay council and until now it is still unsolved
	Safety of the cemetery	<ul style="list-style-type: none"> • The cemetery is located just above the existing quarry of ATN operation • What are the companies plan to avoid landslide/rockslide?

	Absence of the IEC program	<ul style="list-style-type: none"> • From the very beginning, ATN has a wrong approach in dealing with the barangay. They only bring documents to barangay to notify and received but no formal IEC or consultation with the people have been conducted. How can we understand their project? • They have promised before that they are going to conduct a meeting in the barangay together with the concerned government agencies and non-government entities but it did not happen.
	Community Development Program (CDP)	<ul style="list-style-type: none"> • The council was advised to conduct a planning workshop with the presence of sectoral representatives to identify barangay priority projects

8.5 Minutes of the SDMP/CDP Consultation Meeting (including photos), November 23, 2019

MINUTES OF THE SDMP/CDP CONSULTATION MEETING

November 23, 2019

Session Hall, Barangay Macabud, Rodriguez Rizal

Honorable Councilor Renie T. Nedusa headed the attendees of the meeting. He welcomes the ATN representatives and expresses 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 because most of the council members are not present due to other commitments. ATN respected their decision.

ATN socio consultant introduced himself and ATN Holdings Inc. representatives. He explained that the meeting was allowed by Hon. Barangay Captain Judith Gandia through a request letter and personal communication with her. He imparted to the group that the objective of the gathering is to consult the barangay council, sectoral and local organization's representative about ATN's CDP and SDMP and the proposed planning workshop.

A PowerPoint presentation about the SDMP and CDP was presented by ATN representative to provide knowledge to the attendees about DAO 2010-21 and the company's implementation scheme as mandated by law.

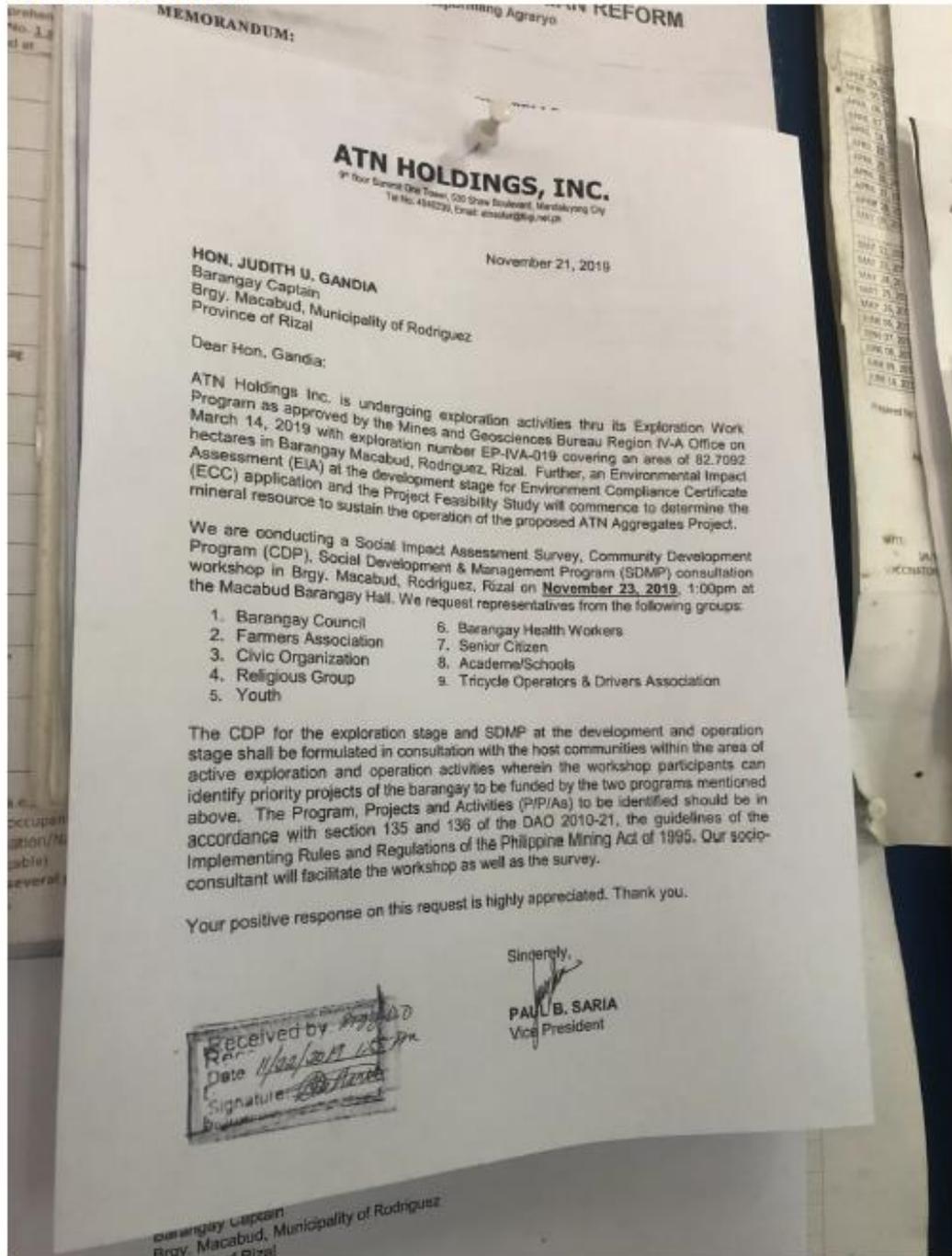
Objective of SDMP

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

After the presentation, the presenter reminded them that part of the consultations is to conduct a planning workshop. However, councilor Nedusa decides not to proceed with it because the other barangay official was not around. ATN shared that the company has an on-going random Social Development perception survey that was allowed by Honorable Barangay Captain Gandia. Since the workshop will no longer be conducted, it was clarified that the result of the survey is already enough as a basis for the formulation of the 5-Year SDMP and CDP. Furthermore, it was shared that once MGB has approved the 5-Year SDMP, an Annual SDMP has to be prepared by ATN in consultation with the community where they can prioritize development projects that can be funded by the SDMP and CDP.

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

Photo Documentation





Copy of PowerPoint 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.



Prepared by:

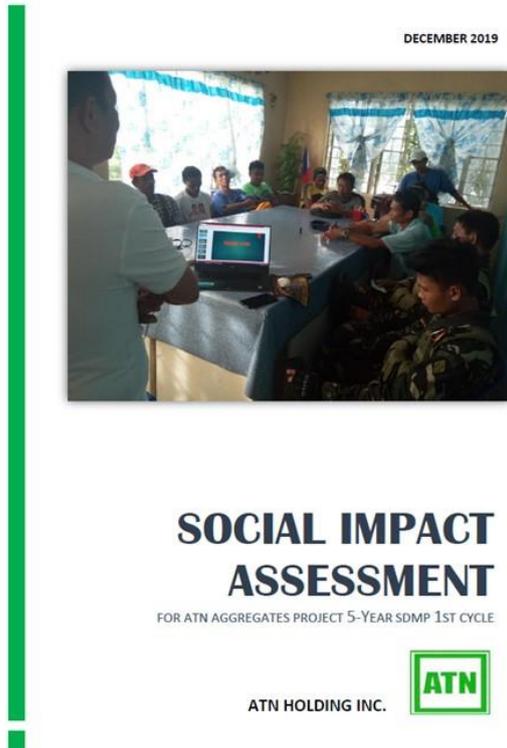
Diosdado R. Parreno Jr.

8.6 Summary of Key Informant Interview

Table 14. KII Summary of Issues and Concerns

Location	Issues Raised	Concerns/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
		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		

8.8 Copy of ATN Social Impact Assessment



ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table of Contents

- A. INTRODUCTION 4
 - 1. Collection and Review of Secondary Data 5
 - 2. Key Informant Interview (KII) 5
 - 3. Focus Group Discussion (FGD) and SDMP Consultation 5
 - 4. Perception Survey 5
 - 1. Location and Accessibility 6
 - 1. Geographical Location 8
 - 2. Demographic Information 9
 - a. Demography of Barangay Macabud 9
 - b. Religious Affiliation 10
 - c. Education 10
 - d. Occupation/Employment 11
 - e. Income 11
 - f. Health 11
 - g. Governance 12
 - h. Local Organizations 12

- E. RESULTS OF SOCIAL IMPACT ASSESSMENT 13
- 1. Key Informant Interview 13
- 2. FGD/SDMP Consultation Meeting 14
- 3. Perception Survey 15
 - a. Respondents Profile 15
 - b. Family Information of Respondents 17
 - c. Housing Information of Respondents 19
 - d. Health Information of Respondents 21
 - e. Environmental Awareness 23
 - f. Proposed Community Development Program/Projects 24
 - 4. Social Impact Assessment 29
- F. RECOMMENDATION 33
- 1. SDMP Formulation and Management 33
- 2. Establish Community Relations Office 33
- 3. Monitoring and Evaluation 33
- 4. Enhance Community Engagement 34
- 5. Increase SDMP budget 35
- G. Bibliography 35
- H. Annexes 37

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

- 1. Photo Documentation 37
 - a. SDMP Consultation 37
 - b. Perception Survey 41
 - c. Copy of SDMP Presentation 49

List of Tables

- Table 1. Technical Description 6
- Table 2. Land Area by Barangay 8
- Table 3. Demographic Profile of Barangay Macabud 10
- Table 4. Distribution of Monthly Income 11
- Table 5. Distribution of Respondents Based on Age 15
- Table 6. Distribution of Respondents Based on Sex 15
- Table 7. Distribution of Respondents Based on Birthplace 16
- Table 8. Distribution of Respondents Based on Religion 16
- Table 9. Distribution of Respondents Based on Marital Status 16
- Table 10. Distribution of Respondents Based on Role in the Family 17
- Table 11. Distribution of Respondents Based on Educational Attainment 17
- Table 12. Distribution of Respondents Based on Source of Income 18
- Table 13. Distribution of Respondents Based on Monthly Income 18
- Table 14. Distribution of Respondents Based on Length of Residency 18
- Table 15. Distribution of Respondents Based on Household Size 19
- Table 16. Distribution of Respondents Based on Structure of the House 19
- Table 17. Distribution of Respondents by Ownership of the House 20
- Table 18. Distribution of Respondents Based on Source of Water 20
- Table 19. Distribution of Respondents Based on Source of Electricity 20
- Table 20. Distribution of Respondents Based on Source of Fuel for Cooking 21
- Table 21. Respondents with Toilet Facility 21
- Table 22. Respondents Garbage Disposal Practice 21
- Table 23. Sickness Experienced by the Family of Respondents for the last 5 Years 22
- Table 24. Presence of Barangay Health Center 22
- Table 25. Perception on the Services of the Health Center 22
- Table 26. Medical Facility in case of Sicknesses 22
- Table 27. Environment Related Problem Experienced 23
- Table 28. Implementation of Mitigating Measures and Development 23
- Table 29. Changes/Development in the Barangay for the last 5 Years 24
- Table 30. Community Issues in Relation to Source of Income/Livelihood 24
- Table 31. Perceived Training Needed for Local Organizations 25
- Table 32. Educational Problem of the Community 25
- Table 33. Water Problem 25
- Table 34. Infrastructure Problem 26
- Table 35. Suggested Solution on the Issue of Source of Income 26
- Table 36. Perceived Solution to Improve Access to Education 26
- Table 37. Perceived Solution to Health Issue 27
- Table 38. Proposed Community Development Training 27
- Table 39. Proposed Infrastructure Project 27
- Table 40. Other Projects to be considered in the SDMP 28

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

- Table 41. SIA Matrix 29

List of Figures

- Figure 1. Tenement Map 7
- Figure 2. Vicinity Map 7
- Figure 3. Location Map of Rodriguez, Rizal 9

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 Aggregats 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:

- 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;
- 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;
- Analyze possible impacts of the 5-year SDMP (2020-2024) on institutions, groups, and individuals of Barangays Macabud; and
- 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 Aggregats 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Support facilities (includes office buildings, housing facilities, and bunk houses, security outposts, and facilities, motorpool, nursery area)
Pollution Control facilities (including sedimentation ponds/settling ponds, pit drainage)

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 1. 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Figure 1. Tenement Map

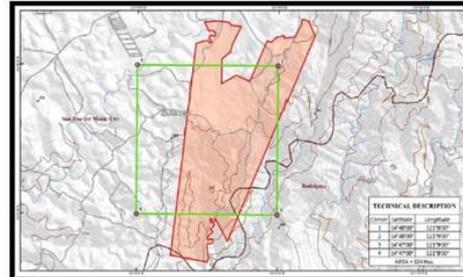
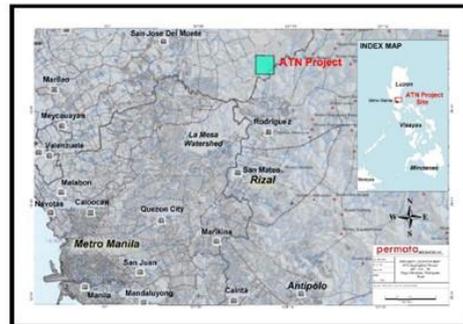


Figure 2. Vicinity Map



ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

D. SITE PROFILE

1. Geographical Location

Barangay Macabud which is the host barangay of ATN Aggregats 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, Calocan 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.

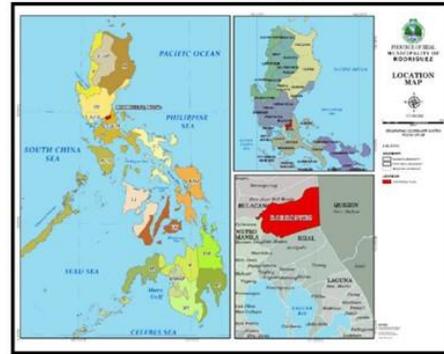
Municipality of Rodriguez is situated in the northernmost part of Rizal Province and within the fringes of Metro Manila. Situated at the foot of the Sierra Madre Mountains with a total of 36,307.31 hectares or 363.07 km², it is one of the largest municipalities in Rizal Province in terms of land area. More than 40% (12,620.90 hectares) of the Upper Marikina River Basin and Protective Landscape (UMRPL) is part of the municipality. It is bounded on the West by Quezon City and Calocan 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 2. 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%
Masap	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%

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Figure 3. Location Map of Rodriguez, Rizal



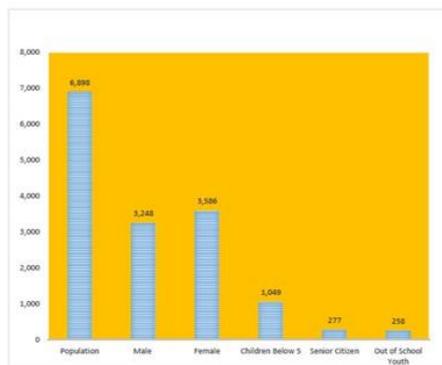
2. Demographic Information

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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 3. 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 Jovill 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

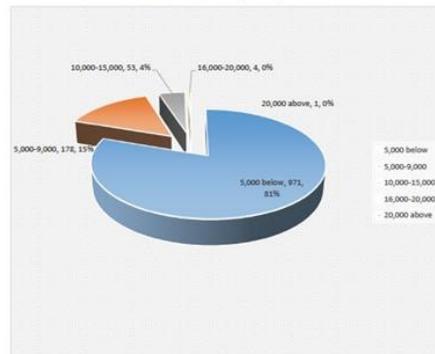
d. Occupation/Employment

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 4. 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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. Montañano
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

12 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

	monitoring of the activities of Macabud TODA.
Odiangan 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 & 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 measure 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

13 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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

14 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 5. 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 6. Distribution of Respondents Based on Sex

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

15 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 7. 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
Kidspawan 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 8. 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 9. Distribution of Respondents Based on Marital Status

Marital Status	Frequency	Percentage
Single	6	16.7
Married	23	63.9

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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% are daughters.

Table 10. 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 11. 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 12. 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 13. 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 14. 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 15. 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 16. 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
G.I Roof/Wood	3	8.3
G.I Roof/Concrete	5	13.9
Mixed	12	33.3
Total	36	100.0

Ownership of the House

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 17. 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 18. 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 19. 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 20. 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 21. 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 22. 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 23. 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 24. 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 25. 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 26. Medical Facility in case of Sicknesses

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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Health center/govt. hospital	Count	Percentage
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 27. 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 farm lots/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 28. 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 29. 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 30. 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	41	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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 34. 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 35. 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 36. 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 31. 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 32. 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 33. 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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Table 37. 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 38. 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 39. 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

ATN AGGREGATE PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 40. 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

ATN AGGREGATE PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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 KIII 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 41. 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 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>

ATN AGGREGATE PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

<ul style="list-style-type: none"> • Existing water sources are far from the residential area • Some springs were already affected by quarry operation • Noise pollution • 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 farmers to quarry operation 	<ul style="list-style-type: none"> • Livelihood program • Employment • Capital loan • Establish a cooperative 	<p>Additional source of income is a perennial problem as conveyed in the survey. Majority of the respondents in the survey have no source of earning a monthly income ranging from 1,000-5,000.</p>	<p>In the rural areas being developed and community-based.</p> <p>Livelihood program have to be included in the SDMP. Asset-building is the most probable approach to livelihood development in the area that will be developed. Training 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. Establishment of new school is not plausible because of limited SDMP funds. However, provisions of assistance to the school both in terms of financial support and child development center will contribute to the enhancement of teaching methods and learning.</p>
<ul style="list-style-type: none"> • Elementary and High School location is far from remote sitios • Financial problem • Transportation cost of parents from house to school 	<ul style="list-style-type: none"> • Establishment of additional school at remote sitios • Scholarship program • Free education 	<p>Accessibility to school facility is the main complain of the respondents in the survey as well as financial capability to send their children to school and enroll them in college.</p>	

ATN AGGREGATE PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

<ul style="list-style-type: none"> • Blad 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. There is already on-going road projects, for them the development is very slow.</p>	<p>experience. Provision of equipment, school supplies, and other materials to the schools will help improve the students' overall schooling experience.</p> <p>College scholarship could be provided to students from indigent families for joining related courses through the development of mining technology and geosciences budget.</p> <p>While concreting project is at the development stage, Assistance in the form of 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 support of goods and services. 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 road networks. It will accommodate the</p>
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ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

			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.	differentiated safety needs of its users particularly the PWDs, older persons, women traveling with children, children and pregnant women.
			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.	In the absence of MWSS water line in Sitio Laran, establishment of a water reservoir or water tank would be of help for better access to safe and potable water.
				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.

32 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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.

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

- 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

G. Bibliography

Public Scoping Report, ATN Aggregates Project, May 16, 2019
Permata Resources Inc.

Social Investigation (SI) and Participatory Rural Appraisal (PRA) Report, ATN Solar Project, Barangay Macabud, April 16, 2013

Burdge, R.J. and Vanclay, F. (1996). Social impact assessment: A Contribution to the state of the art series, Impact Assessment, 14:1, 59-86, DOI: 10.1080/07349165.1996.9725886

Department Administrative Order No. 2010-21, 2010. Department of Environment and Natural Resources

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

Annual Progress Report of the Municipality of Rodriguez, FY 2018

Comprehensive Land Use Plan (CLUP), 2016-2021, Municipality of Rodriguez, Province of Rizal

Comprehensive Development Plan (CDP), Municipality of Rodriguez, Province of Rizal

Physical and Environment Profile, Municipality of Rodriguez, Province of Rizal

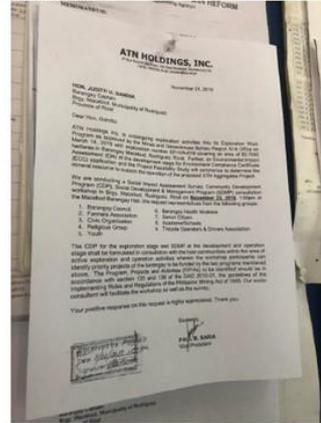
Situational Analysis Report, Municipality of Rodriguez, Province of Rizal

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

H. Annexes

1. Photo Documentation

a. SDMP Consultation



ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



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ATH AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

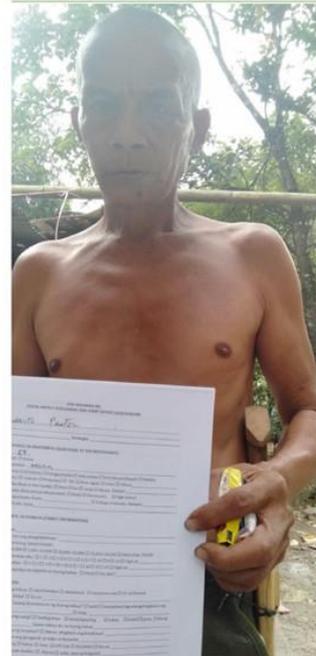
b. Perception Survey



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ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



44 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



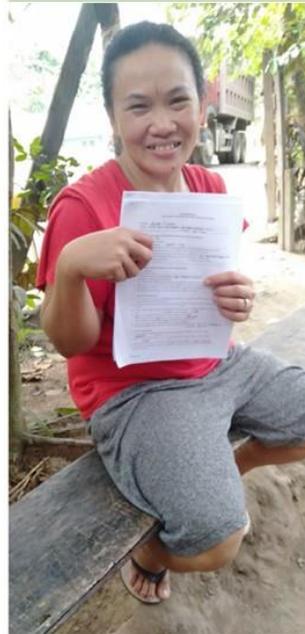
45 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



46 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



47 | Page



c. 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 135-134

- 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

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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)

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

52 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP

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

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

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

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

53 | Page

ATN AGGREGATS PROJECT
SOCIAL IMPACT ASSESSMENT FOR 5-YEAR SDMP



Prepared by:


Dignado R. Parreño Jr.
Socio Consultant

54 | Page

Prepared by:



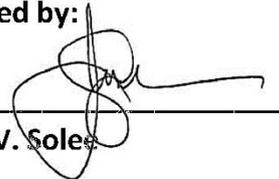
Diosdado R. Parreño Jr.

CDP Consultant

Telephone: +63(2) 9178883506

Email Address: jojoparreno@gmail.com

Approved by:



Deody V. Soles

Noted by:



Paul B. Sarria

COO, ATN Holdings Inc.