

PROJECT DESCRIPTION FOR SCOPING (PDS)

I. BASIC PROJECT INFORMATION

a. Project Information

Project Name	NORWEAH Metals and Mineral Mining Project
Project Proponent	NORWEAH Metals and Minerals Co., Inc.
Nature of Project	Mining and Quarrying
Project Location	Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation
MPSA No.	MPSA No. 241-2007-XIII-SMR
Total Project Area	226.0235 hectares
Minerals and Extraction	1.5M MT Nickel and 50,000T Chromite per Year
Contact Person	Hilario G. Paguitan Chairman, CEO +6386 365 1471
Email Address	norweahmetalsminerals@yahoo.com

b. Proponent Profile

The company was a duly registered business firm established on April 23, 1992 and was registered with Securities and Exchange Commission (SEC) on the same date with SEC registration No. ASO92-002754. The company was organized to acquire, explore, and develop mineral land areas prospected by the Founding Chairman in the areas like Surigao Mineral Reservation and other Mineral Land areas in the country.

In its early stage of operation, the company was engaged in Chrome Ore Trading with Small Scale Mining operations at Dinagat Island, Surigao del Norte. Its trading operations was expanded all the way to Eastern Samar, Palawan, and Surigao del Sur. The company was able also to trade Chrome Ore locally with local Chrome Ore Smelters and likewise to Chrome Ore exporters.

The company has 3 approved Mineral Production and Sharing Agreement (MPSA) denominated as:

MPSA-240-2007-XIII (SMR) (1,225.1904 hectares), Sangay, Carmen, Loreto, Province of Dinagat Island, Operated by Oriental Vision Mining Philippines, Corp.

MPSA-241-2007-XIII(SMR) (226.0235 hectares), Boa, Cagdianao, Province of Dinagat Island Operated by Cagdianao Mining Corporation. Copy of MPSA Attached.

MPSA-242-2007-XIII (SMR) (2,316.2018 hectares), Malinao, Tubajon, Province of Dinagat Island, Operated by Oriental Vision Mining Philippines Corp.

At present, Norweah is applying for environmental compliance certificate (ECC) for the MPSA-241-2007-XIII(SMR) (226.0235 hectares), at Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation. This project is expected to produce 1.5M MT Nickel and 50,000T Chromite per annum in compliance with Section 4 of Presidential Decree No. 1586 and its Implementing Rules and Regulations.

c. Project Components List

Below are the major components of the proposed project:

Component	Description
Pre-construction	<ul style="list-style-type: none">Activities include site preparation, topographic and location survey, geologic mapping, test pitting, laboratory analysis, trenching and core drilling.
Construction and development	<ul style="list-style-type: none">This component will commence after the advanced pre-construction are completed. This involves the construction of haul and access roads, causeway, stockpiles and dumps, pollution control devices and support facilities such as office building, housing, security posts workshop, warehouse, fuel depot, nursery and other guard and security facilities; laboratory, drainage canals, water and power utilities
Operation phase	<ul style="list-style-type: none">NORWEAH will adopt surface mining method in extracting nickel and chromite. Contour method of surface mining will be employed. The following are the activities during the operation: actual extraction of the ore, implementation of progressive rehabilitation, continued implementation of EMP. EMoP and SDMP, hauling of ore to the designated area
Processing and shipping	<ul style="list-style-type: none">This component of mining involves the following activities: segregating ore from waste rock,

	transfer of waste rock to waste dumps, transfer of ore to the final ore stockpile area, solar drying of ore to reduce moisture between 20 and 35 per cent, shipping of solar dried and clean ore
Abandonement	<ul style="list-style-type: none"> Decommissioning will be undertaken once the economic extraction is optimized. Decommissioning and mine closure should be strictly in accordance with the approved FMRDP. The activities are: removal of equipment, Rehabilitation of mined-out areas, mine yards, waste dumps and siltation traps and ponds, transfer/donation of fixed structures to host LGU.

II. PROJECT DESCRIPTION

a. Project Location and Area

The project will be situated in barangay Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation under MPSA No. 241-2007-XIII-SMR that covers 226.0235 hectares. Boa is a coastal barangay in the Municipality of Cagdianao with geographic coordinates 10.1172, 125.6587 and estimated elevation of 7.6 meters or 24.9 feet above mean sea level. This barangay is a home of 1040 individuals or 5.67 percent of the municipal population (PSA Census, 2020).

Table 1. Boundary coordinates of MPSA No. 241-2007-XIII-SMR

Corner	Latitude	Longitude
1	10 ⁰ 06' 30.00"	125 ⁰ 39' 00.00"
2	10 ⁰ 08' 00.00"	125 ⁰ 39' 00.00"
3	10 ⁰ 08' 00.00"	125 ⁰ 39' 22.50"
4	10 ⁰ 07' 45.00"	125 ⁰ 39' 07.50"
5	10 ⁰ 07' 41.25"	125 ⁰ 39' 22.50"
6	10 ⁰ 07' 15.00"	125 ⁰ 39' 22.50"
7	10 ⁰ 07' 07.50"	125 ⁰ 39' 07.50"
8	10 ⁰ 07' 00.00"	125 ⁰ 39' 07.50"
9	10 ⁰ 06' 41.25"	125 ⁰ 39' 52.50"
10	10 ⁰ 06' 37.50"	125 ⁰ 39' 56.25"
11	10 ⁰ 06' 37.50"	125 ⁰ 40' 07.50"
12	10 ⁰ 06' 40.00"	125 ⁰ 40' 15.00"
13	10 ⁰ 06' 30.00"	125 ⁰ 40' 22.50"

Barangay Boa is the direct impact area of the proposed project. On the other hand, Barangay Valencia, Benglen, Tag-abaca, Santo-Niño, Diegas, Rita Glenda, and Del Pilar are the indirect impact areas wherein Barangay Boa shares a common administrative border.



Figure 1. Location of the proposed project based on the issued MPSA



Figure 2. Proposed Project Area

III. Project Rationale

The Norweah Metals and Minerals Co., Inc. is a Filipino-owned company duly recognized by the Philippine government as one of potential investors in optimizing potential socio-economic benefits of mineral resources, especially Nickel and Chromite, through sustainable and responsible mining operations.¹

At present, the company is responding to an increasing demand for nickel and chromite in local and global market. Nickel is a lustrous, silvery-white metallic and the fifth most common element on earth wherein major industrial uses include stainless steel (72%), followed by alloy production (12%), electroplating (6%), batteries (6%), metallurgical castings (2%) and other miscellaneous products (2%), as shown in Figure 2.

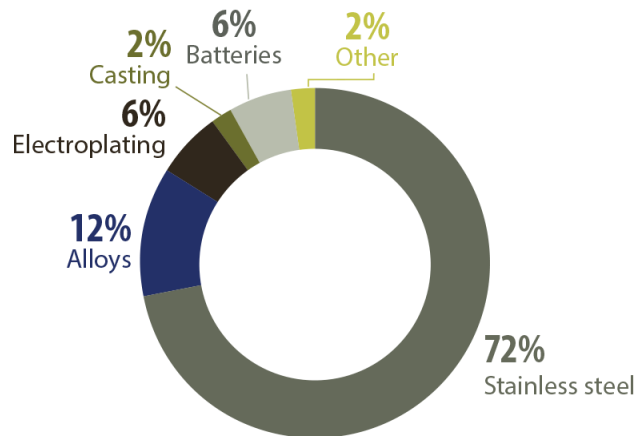


Figure 2. Nickel, global uses, 2020 (Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2021)

Nickel ore is mined in 23 countries and smelted or refined in 25 countries in the world. It is most prominent in the country, including Russia, Canada, Australia, and New Caledonia in 2019 with an average market price of 13,194 U.S. dollars per metric ton. Currently, Australia has one of the world's largest reserves at 20 million metric tons, or 22% of the global reserves. On the other hand, Indonesia was the highest producer on nickel from mines in 2020 with approximately 760,000 metric tons of production or 30.4% of global production while Philippines ranked second.

Table 2. World mine production of nickel, by country, 2020 (Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2021)

¹ Executive Order No. 270 recognizes the important role of the mining industry to the national economy.

Ranking	Country	Thousand tonnes	Percentage of total
1	Indonesia	760	30.4%
2	Philippines	320	12.8%
3	Russia	280	11.2%
4	New Caledonia	200	8.0%
5	Australia	170	6.8%
6	Canada	167	6.7%
7	China	120	4.8%
8	Brazil	73	2.9%
9	Cuba	49	2.0%
-	Other countries	353	14.1%
Total		2,500	100.0%

In 2009, global nickel consumption amounted to approximately 1.29 million metric tons. Since then, year-over-year nickel consumption increased rapidly to more than 2.44 million metric tons in 2020. In 2020, the demand for nickel was around 2.45 million metric tons and was forecasted to increase by 3.18 million metric tons worldwide this year, 2022.

The increasing demand for nickel and the potential reserves of this element in the country, particularly in Barangay Boa, Cagdianao, Dinagat Island, drives the interest of the company to engage in metals and minerals mining. Apart from economic and business interest, the company envisions a well maintained and balanced ecosystem coupled with cooperative and self-reliant mining community amidst sound profitability, and maximum utilization of mineral reserves and resources towards productivity, huge foreign exchange turn-over, and people centered industrial and labor management relations. Also, the company aims to establish effective environmental management system and social commitment to support the mining community, to develop the natural resources through responsible mining operation, uphold a flexible and harmonious workplace.

IV. Project Alternatives

Aspect	Standard Criteria	Options Considered	Assessment

<p>Siting of mining area and location of ancillary facilities</p>	<ul style="list-style-type: none"> • Perception of Affected communities • Ancestral Domain issues • Land classification • Environmental consideration 	<p>development within the MPSA contract area</p>	<p>The company will develop and implement a Community Development Program (CDP) that benefitted its host communities. By continuing the exploration activities and eventually the mining operation, the social development projects being received by the host communities will continue and its budget will increase due to the implementation of the Social Development and Management Program (SDMP), once operational.</p> <p>The development of mining area and its ancillary facilities within the area of the issued MPSA</p> <p>In addition, clearing delineated based on the approved mining plan. Clearing of vegetation cover especially trees shall not be done within the required legal easements such as rivers, creeks, riparian zones, and other identified restricted areas and confined within the approved mining</p>
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			areas. Furthermore, sediment control structures such as settling ponds shall be constructed.
Technology selection/ Operation process	<ul style="list-style-type: none"> • Marketability • Capital cost • Type and volume of ore • Local situation • Condition of the site 		<p>Proponent shall also employ the mining process flow that will include:</p> <ul style="list-style-type: none"> • ➤ Ground Clearing • ➤ Topsoil Recovery • ➤ Overburden stripping • ➤ Nickel mining • ➤ Chromite mining • ➤ Pre-piling • ➤ Stockpiling • ➤ Shipping
Transport scheme of ore materials	<ul style="list-style-type: none"> • Physical properties and quantity of the mineral product • Land accessibility • Land topography • Local situation/ traffic situation • Capital cost • Mine life • Bathymetry 	<p>Transportation of ore from mine pit to causeway</p> <ul style="list-style-type: none"> • Development of haul road connecting the mine pit • Use of conveyor belts to transport ore from the mine site to causeway <p>Shipment</p>	As discussed, proponent will develop haul roads and causeway.

	<ul style="list-style-type: none"> • Environmental impacts 	<ul style="list-style-type: none"> • Utilize the causeway • Development of a new causeway 	
Resource utilization	Power Generation • Source of power • Total power requirement	Electric Cooperative <ul style="list-style-type: none"> • Diesel generator sets 	<p>The proposed project shall use both options. Electrification of offices and facilities shall be undertaken. In the areas where electrification is not feasible, proponent will use generator sets.</p> <p>Permit to Operate (PTOs) shall be secured for the use of the generator sets and the comply shall comply with its conditions.</p>
	Water Management System <ul style="list-style-type: none"> • Source of water 	<ul style="list-style-type: none"> • For domestic water, currently available sources of water are the rivers, springs and groundwater • For road watering, available resources are rivers 	<p>In terms of domestic water supply for the offices, proponent will source it from river, spring or creek. An estimated 1,000 L/day shall be consumed by the office workers. The company shall also ensure that conservation methods shall be implemented.</p>

V. Development Plan, Description of Project Phases and Corresponding Timeframe

Pre-construction Phase

The pre-construction phase shall include the ECC application for the operation of the proposed NORWEAH Metals and Mineral Mining Project. Hence, proponent commissioned the conduct of this EIA. Other necessary permits shall also be secured from the LGUs after the ECC has been granted.

Operation at the proposed mine area shall require the development of a haul road connecting the mine area to the stockyards. Activities include ground clearing, construction of road and offices. proponent shall implement environmental mitigating measures to prevent dust generation, soil erosion and siltation of nearby water body.

Operation Phase

This proposed mining project has a mine life of 25 years with an annual production of 1.5 WMT of Nickel and 50,000 T of Chromite per year. To implement the proposed mining project, proponent shall utilize the heavy equipment's.

Clearing and Topsoil Recovery

A delineated parcel shall be opened every year for a period of 15 years. This shall reduce the impact on the environment by limiting the open areas which are susceptible to soil erosion and dust generation. The area scheduled to be mined shall be cleared of its vegetation using bulldozers. Once cleared, topsoil shall be collected and placed in a stockpile to be used in the rehabilitation phase.

Overburden waste handling

Once the vegetation and the topsoil have been removed from the parcel, removal of the overburden shall follow. The overburden is composed of materials with nickel content below the cut-off grade. Excavators and loaders shall be used to extract the overburden and shall be hauled to its designated stockpile using dump trucks. proponent shall maintain an average bench height of 3 m with batter angle and overall slope angle not exceeding 60° and 40°, respectively.

Mining

Extraction of the Nickel and Chromite shall be the same as the overburden. Once extracted, dump trucks will be used to transport the ores to the two (2) mine yards depending on iron grade.

Pre-Piling and Stock Piling

Once extracted, the nickel and chromite will be hauled to the High Iron Ore (HFO) stockyard where nickel and chromite stockpile is equivalent to 30 truckloads. The extracted nickel and chromite from the mine area will be directed to the pre-piling area of the Low Iron Ore (LFO) yard

where one (1) pre-pile is equivalent to 12 truckloads. Pre-piling is done in order to satisfy the required nickel grade. After which the ore will be hauled and stockpiled according to its material classification in a designated area within the LFO stockyard. The stockpile will be covered with tarpaulin to prevent it from getting wet.

Shipping

Once ready for shipment, the nickel and chromite will be hauled using dump trucks from stockyard to the causeway area. Then, it will be loaded into a Landing Craft Tank (LCT).

Abandonment/Rehabilitation Phase

Once a parcel is declared mined-out, proponent shall immediately implement a rehabilitation program as indicated in the Environmental Protection and Enhancement Program (EPEP). Prior to the implementation of the project, proponent shall prepare and submit the EPEP together with the Final Mine Rehabilitation and/or Decommissioning Plan (FMRDP) to the MGB Region XIII for its approval.

The EPEP and FMRDP shall serve as guide to proponent in implementing rehabilitation activities and the preparing for the final mine decommissioning.

Project Cost and Duration

The estimated cost for Phase I of this project is 5 billion. The operation will start upon the issuance of ECC and other permits.

VI. Impact Areas

Determination of impact area

The criteria used in determining the direct impact area (DIA) and the indirect impact area (IIA) are the guidelines provided under DAO 2003-30 and supplemented by DAO 2017-15.

Annex 2-2 of the Revised Procedural Manual (RPM) of DAO 2003-30 initially defined the Direct Impact Area (DIA) at the pre-EIA stage as the area where all “*project facilities are proposed to be constructed/situated and where all operations are proposed to be undertaken*”. However, this was revised by DAO 2017-15 to include the following:

- The DIA shall be delineated based on the results of the assessment of the Project’s impact on air, water, land and people.
- The IIA on the other hand, shall be delineated for impacts on people and shall include those in the vicinity of the DIA who will either benefit or be affected indirectly by the Project

The result of the ambient air and noise and water quality sampling will be used to determine the areas directly affected by the emissions from the establishment.

a. Project Phases, Key Environmental Aspects, Wastes, Issues, Built-in Measures

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMA NCE OF MITIGATIN G MEASURES
Site Preparation (Clearing and grubbing and construction of access roads)		
Possible soil erosion and siltation of	<p>All surface water runoff within the mine area during site preparation shall be redirected to the temporary settling ponds before discharge to minimize and control infiltration of sediments to the nearby water body</p> <p>Installation of sediment traps along ditches or canals to control the velocity of runoff;</p> <p>Installation of silt or turbidity curtains, especially in disturbed areas near the waterways;</p> <p>Strictly no clearing shall be done within the 60 meter easement of impacted natural waterways;</p>	100% compliance with RA 9275
Generation of spoils such as excess fill materials from grading and excavation activities	<p>Spoils from excavation shall be used as fill materials for lower areas until it reaches highest ground level</p> <p>Unused spoils shall be hauled by a DENR accredited 3rd party hauler and secure delivery permit from the LGU</p>	100% of excess spoils collected/haule d
Generation of dust from site preparation and hauling of spoils	<p>Deployment of Water Trucks for Dust Suppression (1 Water Truck will at least have 5 Trips Per Shift with a total of at least 10 Water Trucks Daily) especially during the dry season until the ground is moist/wet</p> <p>Covering all loaded trucks properly/fully using tarpaulin throughout the hauling period.</p> <p>Impose speed restrictions/ limits to heavy equipment operator and install proper signage. Speed of trucks is limited to 15kph on flat road as standard procedure.</p>	100% compliance with RA 8749
Mining Operational Phase (Construction of benches in mining areas, Ore Extraction and loading, Ore hauling/transport and stockpiling)		

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMA NCE OF MITIGATING MEASURES
Possible siltation of streams due to erosion of exposed soil and overburden materials	<p>All surface water runoff within the mine area shall be redirected before discharge to minimize and control infiltration of sediments to the nearby</p> <p>Design gradient of active mining area shall not be more than 15% and the gradient must not exceed the natural slope along the ridge (8 to 30%);</p> <p>Installation of sediment traps along ditches or canals to control the velocity of runoff;</p> <p>Installation of silt or turbidity curtains, especially in disturbed areas near the waterways;</p> <p>Strictly no clearing shall be done within the 60 meter easement of impacted natural waterways;</p> <p>Utilize the recovered topsoil for re-soiling or as soil cover on waste dumps and all disturbed areas for rehabilitation and revegetation;</p>	100% Compliance with RA 8749
Fugitive dust generation from the quarrying activities	<p>Deployment of Water Trucks for Dust Suppression (1 Water Truck will at least have 5 Trips Per Shift with a total of at least 10 Water Trucks Daily) especially during the dry season until the ground is moist/wet</p> <p>Covering all loaded trucks properly/fully using tarpaulin throughout the hauling period.</p> <p>Impose speed restrictions/ limits to heavy equipment operator and install proper signage. Speed of trucks is limited to 15kph on flat road as standard procedure.</p>	100% Compliance with RA 8749
Generation of noise due to operation of heavy equipment facilities	Use of mufflers and silencers of all heavy equipment to minimize noise generation during daytime and night time noise level standards	

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMA NCE OF MITIGATIN G MEASURES
	Regular Preventive Maintenance Schedule (PMS) of all vehicles/equipment to optimize performance of the heavy equipment	
Camp site operation		
Generation of domestic wastewater	Provision of Hygienic septic tank with regular desludging by third party contractor (the contractor must have a valid discharge permit of its treatment facility)	100% compliance with DENR effluent standards (RA 9275)
Generation of wastewater from motor pool and trucks washing	Operate and maintain the three (3) oil and water separator in the mine site that can contain 4.5m3 of wastewater	100% compliance with DENR effluent standards (RA 9275)
Generation of Solid wastes	Operate and maintain the Central Waste Management Facility to temporarily stored waste that can cater more than 5-10 tons of residual wastes generated during mining operation	
Generation of hazardous wastes	Operate and maintain the separated hazardous facility to accommodate the hazardous waste generation of the mining activity, which can store approximately 30,000 liters of used oil, this is equipped with bund wall to hold more 50% of its capacity Provision of waste bins and implementation of Solid Waste Management Program such as waste segregation, collection, and storage.	100% compliance with RA 6969

Information, Education, and Communication Campaign
PROPOSER NORWEAH METALS AND MINERAL MINING PROJECT
Barangay Boa, Cagdianao, Dinagat Island
March 03, 2022



Prepared by:



LAND VECTOR SURVEYING AND CONSULTANCY FIRM

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RATIONALE

The Norweah Metal and Minerals Company Inc. was established on April 23, 1992, and was registered with the Securities and Exchange Commission (SEC) on the same date with SEC registration No. ASO92-002754.

The mining proposed project in the Municipality of Cagdianao, Dinagat Island is expected to increase revenue collection of the national government as well as the local government of the host barangay and municipality. The proposed project is expected to have a mining site and other support facilities like a motor pool, siltation pond, and administrative offices as main components.

Despite the urgency and importance of this project, the company still needs to follow the government's implementation rules and regulations in securing documents and permits to allow its operation as a golf course project. Under the DENR Administrative Order (DAO) Number 30 series of 2003 and EMB MC 004-2015, the proponent must under EIA process with their ECC application in the DENR-Central Office since the project is considered Environmentally Critical Project (ECP) based on the threshold all mining project is considered to be Environmentally Critical Project.

The Land Surveying and Consultancy Firm (LSCF), a private consulting firm, was commissioned by Norweah Metal and Minerals Company Inc. to conduct the Environmental Impact assessment study. As a preparer, LSCF has to follow the six sequential processes of EIA preparation: screening, scoping, EIA studies, and report preparation, EIA review and evaluation, decision making, and post-ECC monitoring, validation, and assessment.

The LSCF team just started its journey as an EIS preparer by conducting an EIC campaign and initial perception survey in the Barangay Boa, Cagdianao, Dinagat Island, last March 03, 2022, with the observance of COVID-19 health protocols imposed IATF and the Municipality of Cagdianao. The details of the said activity are presented in the succeeding sections of this documentation report.

PURPOSE

The ultimate objective of the proponent and the preparer's IEC campaign was to raise public awareness of the proposed Mining Project to promote community participation. It also diagnoses the issues and concerns, and perceptions of the affected communities and concerned agencies towards establishing a golf course project. It was also an approach to determining potential stakeholders or invitees in public scoping and other public consultations concerning the company's ECC application.

METHODOLOGY

The LSCF team applied four methods to disseminate information and educate the affected communities about the project's background, the purpose, the ECC application process, the EIS system, and the plan of activities.

The team maximizes the advantages of the community meeting approach and key informant interviews, IEC material distribution, and the conduct of a preliminary perception survey. These four approaches ensure that most project-affected persons (PAPs) were reached and informed undoubtedly.



RESULTS

The IEC campaign was successfully done by the proponent and LSCF last March 03, 2022, with the barangay local government unit's assistance.

The team visited the Barangay Captain's Office to ensure consent in implementing the IEC activity. The council allowed the team but with the assurance that health protocols are appropriately observed.

After the community consultation, the team visited the project site and distributed the IEC materials to the affected community/households.

Potential Impact Area			Basis for Selection of Sector as a Stakeholder of the Project	Sectors/Sub-sectors Identified by Proponent to be Likely Stakeholders of the Project	Specific Individuals/ Organizations/ Entities Likely to be Invited to IEC/ Site Scoping as Representing the Sectoral Stakeholders
A	Direct Impact Area				
	1	Barangay Boa	a. The main area will most likely be located b. Project facilities will be established c. LGU has direct political jurisdiction over the area d. Entities will be physically displaced by project construction and operation e. Sector's livelihood sources may be threatened by the project f. The project poses a threat to environmental resources and health g. Potential labor force for the operations	- Barangay LGU - Health Sector - Women Sector - Youth Sector - Senior Citizens Sector - Institution	- Barangay Chairperson and Purok/Sitio Leaders - Barangay Nutrition Scholars and health workers - Chair of Youth Organization - President of Women/Mothers Organization - Senior Citizen's President - School Head/Principal - People's Organization President
B.	LGU with political jurisdiction over the project area (other than the barangays listed in A)				
	1	Cagdianao	a) LGU with political jurisdiction over the project	Municipal LGU Office	Mayor's Office/ Vice Mayor's Office – Municipal Planning and Development Office – Municipal Health Office - Municipal Environment and Natural Resources Office - Provincial Environment and Natural Resources Office
C	Other evident pre-identified areas of potential impact (may be candidates for Indirect Impact Areas, subject to EIA Findings)				
	1	Neighboring Barangay (Brgy. Valencia)	a. LGU has direct political jurisdiction over the area b. Sectors' livelihood sources may be affected by project c. The project poses a threat to environmental resources	Barangay LGU - Health Sector - Youth Sector - Women Sector - Senior Citizen - Academic Sector	- Barangay Chairperson, Councilors, and Purok/Sitio Leaders - Barangay Nutrition Scholars and Health Workers - Leader of Farmers Organization - Chair of Sangguniang Kabataan - President of Women's Organization - President of Senior Citizen Organization

					- School Head/Principal
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ANNEXES

Annex A: Map Showing the Proposed Project Site



Annex B: Attendance Sheet in the Community IEC and Pre-Perception Survey









INFORMATION, EDUCATION, AND COMMUNICATION CAMPAIGN Proposed NORWEAH Metals and Mineral Mining Project Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation

ATTENDANCE SHEET

NAME	ADDRESS	SECTOR/AGENCY	CONTACT NUMBER	SIGNATURE
HERNAN L. PADILLO	Brig. BOA	Brig. - baysand	0961093446	Alfonso
Gregoria Calera	P4 Brig. BOA	SC		Angela
Custodio, Liezel C.	BOA	PHW	09051293305	gustodio
LUMANOG, MARITES V.	BOA. Cagdianao	bto	0953377711C	J
NILIO M. CORONA	BOA CAGDIANAO	PLGU		Don
EDEN L. TILLO	BOA CAGDIANAO	DEPED	09262875083	ZHL
Evelina G. Abbay	BOA Cagdianao	BHW		Evelyn
Cris-Ann L. Pical	BOA Cagdianao			Gracie
Gloria Pical	BOA Cagdianao			Gracie
Felix Labradorilla	BOA Cagdianao			
Maribel Namoc	BOA Cagdianao			Maribel

INFORMATION, EDUCATION, AND COMMUNICATION CAMPAIGN
Proposed NORWEAH Metals and Mineral Mining Project
Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation

ATTENDANCE SHEET

NAME	ADDRESS	SECTOR/AGENCY	CONTACT NUMBER	SIGNATURE
Rosalinda F. Foma	Boa Cagdianao DI		09294993781	
Laquetina Rubialla	11			
Mentze Cusiaga	P-2 Boa Cag DI			
3 Fela C. CAGDIANAO	P-2 BOA CAGDIANAO DI		09294993781	
4 LUGEN J. CAGDIANAO	P-2 BOA CAGDIANAO DI		09294993781	
J. LUGEN LUGEN J. CAGDIANAO	P-1 BOA CAGDIANAO DI			
6 Fela C. CAGDIANAO	P-2 BOA CAGDIANAO DI		09294993781	
7 Rosalyn B. Sajol	P-1 BOA CAGDIANAO DI			

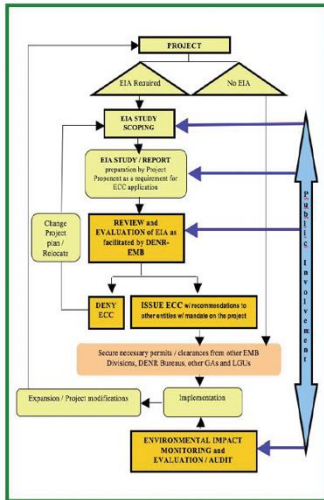
ATTENDANCE SHEET

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Annex C: Sample IEC Material

PROSESO NG ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Sa ilalim ng DENR Administrative Order No. 30 Series of 2003 (DAO-2003-30), ang EIA ay pinatutupad ng DENR sa mga proyekto katulad ng **NORWEAH METALS AND MINERAL MINING PROJECT**. Ito ay isang paraan nang pagplano ng isang proyekto upang mapag-aralan sa syentipikong pamamaraan ang posibleng maging epekto nito sa kalikasan at komunidad.



INFORMATION AND EDUCATION CAMPAIGN (IEC)



Mahalaga ang pakikiiisa at paglahok ng komunidad mula sa simula ng pag-aaral, pagplano, at pag-sasagawa ng proyekto. Ang una at isang parte sa serye ng pagkonsulta sa komunidad para sa isinasagawang EIA para sa proyekto ay ang IEC.

Layunin ng IEC na ipaalam sa komunidad ang mga detalye tungkol sa proyekto at kumuha ng inisyal nilang saloobin o pananaw hinggil dito bago ang public scoping at pagkuha ng kompanya at mga eksperto ng ibang datos kaugnay sa isinasagawang EIA.

DETALYE NG PROYECTO

Project Name	: NORWEAH Metals and Mineral Mining Project
Project Proponent	: NORWEAH Metals and Mineral Company, Inc.
Nature of Project	: Mining and Quarrying
Project Location	: Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation
MPSA No.	: MPSA No. 241-2007-XIII-SMR
Total Project Area	: 226.0235 hectares
Contact Person	: Hilario G. Paguitan Chairman, CEO +6386 365 1471
Email Address	: norweahmetalsminerals@yahoo.com

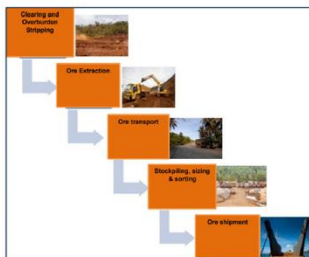
LOKASYON SA PROYECTO



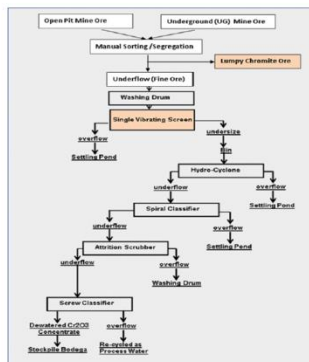
GPS Coordinates sa Proyekto

Corner	Latitude	Longitude
1	10° 06' 30.00"	126° 39' 00.00"
2	10° 08' 00.00"	126° 39' 00.00"
3	10° 08' 00.00"	126° 39' 22.50"
4	10° 07' 45.00"	126° 39' 07.50"
5	10° 07' 41.25"	126° 39' 22.50"
6	10° 07' 15.00"	126° 39' 22.50"
7	10° 07' 07.50"	126° 39' 07.50"
8	10° 07' 00.00"	126° 39' 07.50"
9	10° 06' 41.25"	126° 39' 52.50"
10	10° 06' 37.50"	126° 39' 56.25"
11	10° 06' 37.50"	126° 40' 07.50"
12	10° 06' 40.00"	126° 40' 15.00"
13	10° 06' 30.00"	126° 40' 22.50"

PROSESO NG PAG-MINA

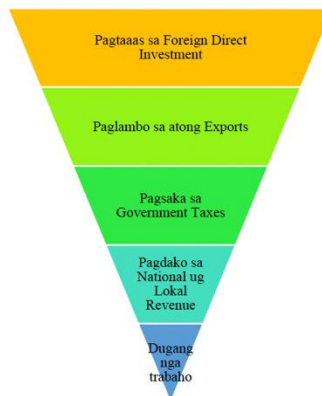


Proseso ng Open-Cut Nickel Mining



Proseso ng Chromite Mining

BENEFISYO NG PAGMINA



Prepared by:

(insert logo)
NORWEAH Metals and Mineral Company, Inc.
Proponent
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EIS Preparer
Koronadal City, South Cotabato
0998 544 7702
landvector20@gmail.com



NORWEAH METALS AND MINERAL PROJECT

Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation

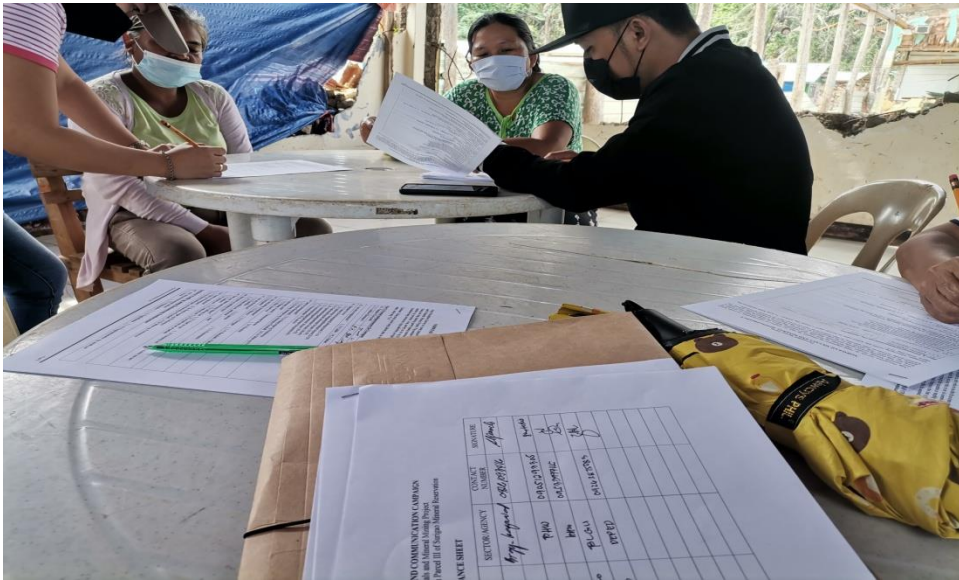
Annex D: Summary List of Pre-Scoping IEC Activity and Issues

LGUs Covered by IEC	Actual IEC Schedule	Issues Raised/ Suggestions Provided	Proponent's Response
Barangay Boa	March 03, 2021	Will they hire more employees?-Elsa Mallurca	Depending on the need and expansion of the project
		What are the livelihoods and assurance that we will be involve in those livelihoods?- April Jen Isogan	Proponent will develop a comprehensive SDMP to be implemented
		Possibility of contamination of water in the river	New technology and processes will be used. Proponent will construct series of settling ponds
		Can the company provide financial assistance to the poor?-Gregoria Galera	Yes, through SDMP and by hiring them to work for the company. Medical and scholarships will also be provided during operational stage of the project
		Barangay resolution interposing no objection of the community.	The resolution will be included in the report.
		Proponent should include farmers and fisherfolks in the programs	Yes, through SDMP

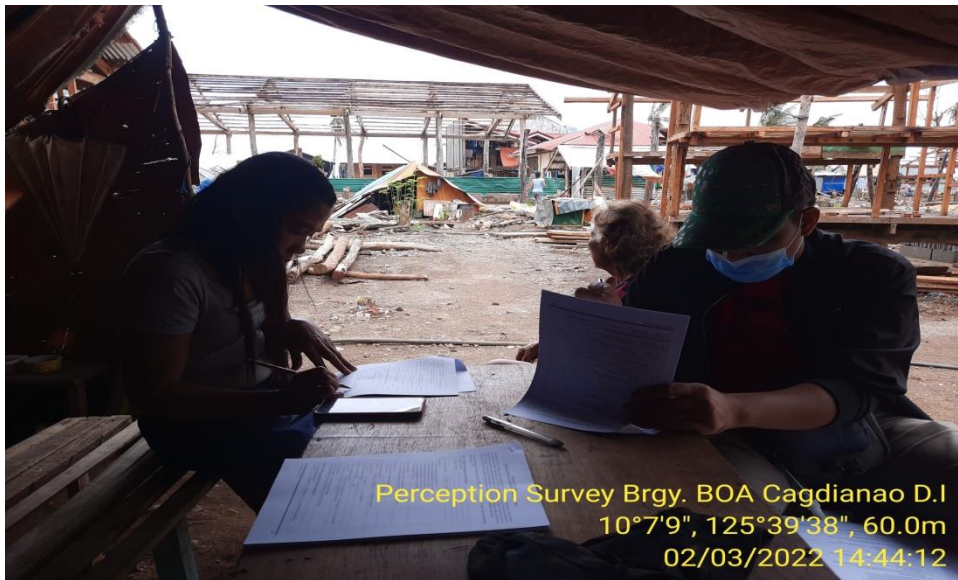
		Will they give more business opportunities for others?	Yes. Business in the adjacent in the project site will be increased.
		Mining activities will cause destruction of our environment	Proponent will implement mitigating measures and will be in a way of responsible mining. In order to ensure that mitigating measures will be implemented, proponent will create its MMT to monitor compliance of the company
		How can we apply to the company for work?	Proponent will designate its Community Relation Officer
		Transportation of materials will generate dust and mud	Proponent will implement regular spraying of road and the same will need workers from brgy. Boa
		Do the company will provide clinics to workers?	Yes, during operational stage
		What are the programs of the company in terms of protecting environment?	Proponent will continuously coordinate with DENR to protect the environment and establish programs based on the existing environment.

Annex E: Photo Documentation









Annex F: Initial List of Invitees for Public Scoping

Name	Barangay / Sector / Agency / Sector	Position
Provincial Government Unit		
Hon. Arlene J. Bag-ao	Provincial Government, Dinagat Island	Provincial Governor
Hon. Nilo P. Demerey	Provincial Government, Dinagat Island	Provincial Vice-Governor
PENR Officer	PENRO – Dinagat Island	PENRO Representative
Municipal Government Unit		
Hon. Adolfo E. Longos	Municipality of Cagdianao	Municipal Mayor
Hon. Rufino P. Fermilan	Municipality of Cagdianao	Municipal Vice Mayor
Mr. Bonifacio Jazon	Municipality of Cagdianao	MPDC/MENRO
Municipal Health Officer	Municipal Health Office of Cagdianao	MHO, Cagdianao
Municipal Agriculture Officer	Municipal Agriculturist Office	MagRO, Cagdianao
Representative	DA-BFAR	DA-BFAR, Dinagat Island
Barangay Local Government Unit		
Hon. Divine E. Eupena	Barangay Boa	Punong Barangay
Hon. Lutgardo N. Eupena	Barangay Boa	Sangguniang Barangay Member
Hon. Merly Grace T. Torbeles	Barangay Boa	Sangguniang Barangay Member
Hon. Julieto M. Cerona	Barangay Boa	Sangguniang Barangay Member
Hon. Edeven C. Ebali	Barangay Boa	Sangguniang Barangay Member
Hon. Sylvia L. Panelo	Barangay Boa	Sangguniang Barangay Member
Hon. Leonardo E. Manatad	Barangay Boa	Sangguniang Barangay Member
Annerberly M. Linogon	Barangay Boa	SK Chairperson
Rhea Dela Peña	Barangay Boa	Barangay Secretary

Hon. Gesrael C. Tillo	Barangay Valencia (Neighboring)	Punong Barangay
Liezel C. Custodio	Barangay Boa	Barangay Health Worker
Marites V. Lumanog	Barangay Boa	Barangay Health Worker
Cris-ann L. Picol	Barangay Boa	Barangay Health Worker
Community Representative & Others		
Gregoria Galera	Barangay Boa	Representative, Senior Citizen
Eden L. Tillo	DepEd / Barangay Boa	Representative, DepEd
Gloria Picol	Barangay Boa	Representative, Community
Filix Gabradilla	Barangay Boa	Representative, Community
Maricel Namoc	Barangay Boa	Representative, Community
Rosalinda R. Roma	Barangay Boa	Representative, Community
Agustina Gabradilla	Barangay Boa	Representative, Community
Menzie Sonsigna	Barangay Boa	Representative, Community
Fely Gabradilla	Barangay Boa	Representative, Community
Roselyn B. Sajol	Barangay Boa	Representative, Community
Gina P. Petilo	Barangay Boa	Representative, Community
Janeth M. Isogan	Barangay Boa	Representative, Community
Fe. M. Linogon	Barangay Boa	Representative, Community
Edwen C. Ebale	Barangay Boa	Representative, Community
April Jen M. Isogan	Barangay Boa	Representative, Community
Elsa R. Mallurca	Barangay Boa	Representative, Community
Zosimo Sablay	Barangay Boa	Representative, Community
The Business Sector	Barangay Boa	Representative, Community
The Parish Priest	Barangay Boa	Representative, Community

IP Representatives		
The DENR Representatives		

Annex G: Results of Preliminary Perception Survey

The team conducted an initial perception survey to have preliminary information about the characteristics of the affected households. The analysis covers the respondents' personal and household profile, its housing conditions, their access to education and health services, community structure, and their perceptions towards the proposed project. A total of ten (50) project affected households were interviewed in the preliminary perception survey.

Personal Profile. As reflected in the table below, the majority of the respondents are adult, some are residence of Barangay Boa, married, and mostly are Bisaya or Surigaonon.

Variable	Frequency
Age	
20-29	8
30-39	10
40-49	21
50-59	11
Total	50
Place of Birth	
Within the Barangay	35
Other Barangay but within Cagdianao	3
Other barangay but within the province	5
Outside the Province	7
Total	50
Civil Status	
Single	18
Married	24
Widow	6
Separated	2
Total	50
Ethnic Origin	
Bisaya	20
Surigaonon	19
Ilonggo	11
Total	50

Household Profile. Partially, it was discovered that most of the respondents are either employed government and private employees (60%) with personal and/or household income of P5,000 to P10,000 per month.

Variable	Frequency
Source of Income	
Govertment / Privately Employed	15
Farming	25
Selling of Goods	10
Total	50
Monthly Personal Income	
Less than 1,000	8
P5,001 – P10,000	32
Lagpas P20,000	10
Total	50
Household Monthly Income	
P5,001 – P10,000	40
Lagpas P20,000	10
Total	10

Housing Conditions. Most of the respondents said that their onwed house was constructed 5 to 10 years ago. The entire respondents are dependent to the municipal water supply as source of potable water.

Variable	Frequency
House' Years of Existence	
5 to 10 years	30
11 to 19 years	8
20 to 29 years	7
30 to 39 years	5
Total	50
House Ownership	
Owner	50
Renter	0
Free Occupants	0
Total	50
Source of Water	
Municipal Water Supply	35
Deep Well	15
Total	50

Community Structure. The entire household-respondents in the preliminary perception survey are members of community organizations (ex. Women association, cooperative, etc). Most common issue is unemployment followed by poverty, food insufficiency, lack of capital, lack of educational and infrastructure supports, lack of health supplies and facilities, lack of potable water, improper waste disposal and management, and damage of houses due to Typhoon Odette.

Variable	Frequency
Organization Membership	
Yes	50
No	0
Total	50
Issues and Problems	
Unemployment	10
Poverty	7
Food Insufficiency	6
Lack of capital for business	5
Lack of Educational support	4
Lack of infrastructure support	4
Lack of health supplies and facilities	4
Lack of potable water supply	3
Improper waste disposal and management	3
Pabahay (damage due to Typhoon Odette)	2

Perception Towards the Project. The entire respondents in the preliminary perception survey are aware of the proposed project through the barangay. As to support, the 90% of respondent are willing to support the project as they are expecting livelihood, economic, and other socio-economic opportunities from the company once realized and 10% are not supporting until such project is implemented.

Variable	Percentage
Awareness of the Project	
Yes	100
No	0
Source of Information	
Community	0
Barangay	40
Meetings/Dialogues/flyers	60
Total	100.0
Support to the Project	
Yes	90.0
No	10

Total	100
-------	-----

Annex H: Sample Accomplished Survey Form

Perception Survey Form
NORWEAH METALS AND MINERAL MINING PROJECT

Ang Perception Survey ay isang pagsusuri ng pananaw ng mga tao tungkol sa inimumukhang Norweah Metals and Mineral Mining Project. Pag-aaralan ng EIA ang mga posibleng epekto ng isang nakaplanong proyekto at kung ano ang maaring gawin upang maiwasan, higitan, at mapabuti ang direkta at kalapit na mga baryo mula sa epekto ng proyekto. Ang survey na ito ng pag-uunawa ay isa sa mga aksyon ng ginagawa upang makuha ang kasalukuyang sitwasyon, mga saloobin, at mga reaksiyon ng mga tao sa mga lugar na apektado ng proyekto.

Tandaan: Manyaring suriin ang kahon para sa inyong sagot o punan ang blanko. At kung hindi nalalaman ang sagot, isulat ang "NA".

Part I. Personal na Impormasyon (Sa Tumugon)

A1. Pangalan (Opsyonal)	ELSA MAULURCA
A.1.1 Address (Barangay)	P3 BOA

A2. Ano ang iyong kasarian?	<input type="checkbox"/> 1) Lalaki <input checked="" type="checkbox"/> 2) Babae
A3. Ilang taon ka na	<input type="checkbox"/> 1) Labing lima hanggang Labingsiyam (15-19) <input type="checkbox"/> 2) Dalawampu hanggang dalawampu'tsiyam (20-29) <input type="checkbox"/> 3) Tatlongampung hanggang tatlongampung'tsiyam (30-39) <input type="checkbox"/> 4) Apatnapuhang hanggang apatnapuhang'tsiyam (40-49) <input checked="" type="checkbox"/> 5) Limampung hanggang limampung'tsiyam (50-59) <input type="checkbox"/> 6) Animnapuhang hanggang animnapuhang'tsiyam (60-69) <input type="checkbox"/> 7) Pitumpupataas (70 & above)
A4. Saan ka ipinanganak?	<input type="checkbox"/> 1) Dito sa Barangay <input type="checkbox"/> 3) Sa ibang lugar ng Probinsya <input type="checkbox"/> 2) Sa ibang barangay ng Munisipyo/Syudad <input checked="" type="checkbox"/> 4) Sa labas ng Probinsya
A5. Katayuang sibil?	<input type="checkbox"/> 1) Walang Asawa <input type="checkbox"/> 3) widower/balona <input checked="" type="checkbox"/> 2) May Asawa na <input type="checkbox"/> 4) Hiwalay
A6. Ano ang lahing pinagmulan?	<input type="checkbox"/> 1) Suriganon <input checked="" type="checkbox"/> 2) Bisaya <input type="checkbox"/> 3) Ilonggo <input type="checkbox"/> 4) Ibanglahi, Pakisulat: _____
A7. Ano ang Relihiyon?	<input type="checkbox"/> 1) Katoliko <input type="checkbox"/> 2) Iglesia <input type="checkbox"/> 3) Protestante <input type="checkbox"/> 4) Ibang relihiyon, pakisulat: <u>(F)</u>
A8. Ilang taon ng nakatira dito?	<u>2</u> taon
A9. Ilan kayo lahat sa inyong bahay?	<input type="checkbox"/> 1) dalawa <input type="checkbox"/> 2) tatlong tao <input type="checkbox"/> 3) Apat na tao <input type="checkbox"/> 4) limang tao <input type="checkbox"/> 5) Anim na tao <input type="checkbox"/> 6) pitong tao <input type="checkbox"/> 7) walong tao <input checked="" type="checkbox"/> 8) siyam na tao at pataas
A10. Saan ka nakatira?	<input checked="" type="checkbox"/> 1) Dito sa Barangay <input type="checkbox"/> 3) Sa ibang lugar ng Probinsya <input type="checkbox"/> 2) Sa ibang barangay ng Munisipyo/Syudad <input type="checkbox"/> 4) Sa labas ng Probinsya

Section B: Profile ng pang-Ekonomiyang Sambayanan

B1. Ano ang unang hanap buhay?
<input type="checkbox"/> 1) Wala <input type="checkbox"/> 2) Magsasaka <input type="checkbox"/> 3) Nagbebenta <input type="checkbox"/> 4) Nagmamaneho ng sasakyan

☒ 5) Empleyado [] 6) Trabahador sa construction [] 7) Pangingisda
[] 7) Ibang hanap buhay, pakisulat: _____

B2. Magkano ang buwanang kita?
[] 1) Mababa sa limang libo ☒ 2) P5,001– P10,000 [] 3) P10,001 – 15,000
[] 4) P15,001 – 20,000 [] 5) Lagpas P20,000

B3. Ilan ang kasama sa bahay na may hanap buhay ngayon? 2 na tao

B4. Sino ang may pinakamalaking kinikita at tumataguyod sa bahay?
☒ 1) Asawa [] 2) Maybahay [] 3) Anak nalalaki [] 4) Anak na babae
[] 5) Kamag-anak na lalaki [] 6) Kamag-anak na babae
[] 7) Ibang naghahanapbuhay, pakisulat: _____

B5. Magkano ang tantiyang kinikita ng buong pamilya bawat buwan?
[] 1) Mababa sa limang libo ☒ 2) P5,001– P10,000 [] 3) P10,001 – 15,000
[] 4) P15,001 – 20,000 [] 5) Lagpas P20,000

B6. Mayroon ba kayong sakahan/bukid na taniman? ☒ Mayroon [] Wala

B7. Kung "Oo" ano ang tanim sa bukid?
[] 1) mais ☒ 5) Niyog [] 9) Mga manok
☒ 2) saging [] 6) Palay [] 10) Mga baboy
[] 3) Manga ☒ 7) kamote [] 11) Mga baka
[] 4) tubohan [] 8) Ibangtanimnanamumunga [] At iba pa, pakisulat: _____

B8. Kagaano kalaki ang sinasaka ng bukid?
☒ 1) Mababa sa isang ektarya [] 2) 1 to 1.9 ektarya [] 3) 2 to 2.9 ektarya [] 4) 3 o higit pang ektarya

B9. Anong klaseng pagmamayari ng lupa ang iyong tinatrabaho ngayon?
[] 1) May ari pro pinapaupahan [] 4) may nangungupahan
☒ 2) May ari at nagsasaka [] 5) Iba, pakisulat: _____
[] 3) Sinasakaat nangungupahan

B.10. Mayroon ba kayong palaisdaan? [] Mayroon ☒ Wala

B.11. Kung "Oo", anon ang inyong pangunahing produkto?

B.12. Magkano ang tantiyang kinikita ng sa palaisdaan o pangingisda sa isang buwan?
[] 1) Mababa sa limanglibo [] 2) P5,001– P10,000 [] 3) P10,001 – 15,000
[] 4) P15,001 – 20,000 [] 5) Lagpas P20,000

Section C: Estado ng Bahay

C1. Ilang taon ng nakatayo ang inyong bahay?
[] 1) 5 hanggang 10 taon [] 2) 11 hanggang 19 taon ☒ 3) 20 hanggang 29 taon
[] 4) 30 hanggang 39 taon [] 5) 40 at lagpas ng apat napung taon

C2. Ano ang bobong ng bahay?
[] 1) nipa [] 2) cogon ☒ 3) Yero [] 4) Plastik [] 5) Iba, pakisulat: _____

C3. Unsay gamit nga bubong sa balay?
[] 1) Kawayan ☒ 2) Kahoy [] 3) Semento [] 4) Yero [] 5) plastik
[] Iba pa, pakisulat: _____

C4. Anong gamit na sahig ng bahay?
[] 1) Kawayan [] 2) Kahoy [] 3) Semento ☒ 4) Wala (lupa) [] 5) plastik
[] 6) Iba pa, pakisulat: _____

C5. Anong uri ng pagmamay ari ng bahay na tinitirhan ngayon?

- ☒ 1) May ari ng bahay ☐ 2) Nangungupahan ☐ 3) Hindi may ari pero libreng nakatira
☐ 4) Iba pa, pakisulat: _____

C6. Anong uri ng pagmamay ari ng lupa na kinatitirhan ng bahay?

- ☒ 1) May ari ☐ 2) Nangungupahan ☐ 3) Libreng pagamit sa lupa
☐ 4) Iba pa, pakisulat: _____

C7. Anong uri ang inyong kubeta?

- ☒ 1) binubuhusan na inidoro ☐ 2) Bungkal sa ilalim ng lupa ☐ 3) Nakikigamit sa kapitbahay/kamag-anak/saiba ☐ 4) "sadamohan", ilagay sa supot at tapon sa ilog

C8. Saan kumukuha ng tubig sa sabahay?

- ☐ 1) batis ☐ 2) balon ☐ 3) Mula sa ulan ☒ 4) patubig sa buong lugar
☐ 5) Municipal Water District ☐ 6) Iba pa, pakisulat: _____

C9. Anong gamit sa pagluluto?

- ☒ 1) kahoy ☐ 2) de-stove ☐ 3) gas ☐ 4) di-kuryente
☐ 5) Iba pa, pakisulat: _____

C11. Kung gumagamit ng kuryente, magkano ang buwanang bayarin?

- ☒ 1) hindi lalagpas sa P300 ☐ 2) P301 hanggang P600 ☐ 4) P601 to P900
☐ 5) P901 o mahigit pa

Section D: Access sa Edukasyon, Pangkalusugang serbisyo at Kaalaman

D1. Ano ang iyong natapos?

- ☐ 1) pre-school ☐ 2) elementarya ☒ 3) high school ☐ 4) vocational
☐ 5) kolehiyo ☐ 6) wala'y nahuman

D2. Ilan ang estudyante sa buong bahay? Ilagay ang bilang ng estudyante:

- ☐ 1) pre-school: _____ ☐ 4) college: 1
☐ 2) elementary: 1 ☐ 5) vocational: _____
☐ 3) high school: 1

D4. Sino ang nagpapa-aral?

- ☒ 1) Mga magulang ☐ 2) kamag-anak ☐ 3) barangay skolar ☐ 4) skolar sa munisipyo o sa probinsiya
☐ 5) conditional cash transfer or Pantawid Pamilyang Pilipino Program (CCT/4Ps)
☒ 6) Ibang scholarship, pakisulat: CNC SCHOLAR

D5. Sa nakaraang tatlong taon, ilang myembro ng pamilya ang huminto sa pag-aaral? 2 estudyante

D6. Dahilan ng paghinto? Pwedeng sumagot ng lagpas sa dalawang sagot

- ☐ 1) malayo ang paaralan ☒ 2) walang pera ☐ 3) kailangan na magtrabaho
☐ 4) may sakit ☐ Ibang dahilan, paki lagay: _____

D7. Sa nakalipas na taon, ilang myembro ng pamilya ang nagkasakit?

- ☐ 1) Isa ☐ 2) apat ☐ 3) lagpas sa pito
☐ 4) dalawa ☐ 5) lima ☒ 6) walang may sakit
☐ 7) tatlo ☐ 8) anim

D8. Ano ang nagging sakit? Pwedeng pumili lagpas ng dalawang sagot.

- ☐ 1) sipon atubo ☐ 2) impeksyon
☐ 3) lagnat ☐ 4) Ibang sakit, pakisulat: _____
☐ 5) sakit ng tiyan/nagsusuka at natatae

D9. Sa nakalipas na taon, nagpagamot ba kayo? ☐ 1) nagpagamot ☒ 2) hindi nagpagamot

D10. Saan nagpagamot?

- ☐ 1) Sa bahay lang ☐ 2) BHW ☐ 3) barangay health center ☐ 4) Sa pribadong doktor
☐ 5) hospital ☐ 6) Albularyo
☐ 7) Ibang pagamotan, pakisulat: _____

D11. Paraan ng pagtapon ng basura?

- ☒ 1) Tapon sa basurahan ☐ 2) may malalim na tapunan
☐ 3) maghintay sa koleksyon ng barangay
☐ 4) Ibang paraan, Pakisulat: _____

D12. Paraan ng pagasagap ng balita? Pweding pumili ng lagpas sa dalawang sagot.

- ☐ 1) radyo ☒ 2) Telebisyon ☐ 3) Pahayagan ☐ 4) cellphone ☐ 5) internet
☐ 6) Ibang paraan sa pagsagap ng balita, pakisulat: _____

Section E: Comunidad

E1. Myembro ng isang organisasyon dito? ☒ Oo ☐ Hindi

E2. Kung myembro, anong klaseng organisasyon?

- ☐ 1) Samahan ng mga may edad ☐ 4) Samahan ng mga kabataan
☐ 2) Samahan ng mga magsasaka ☐ 5) Samahan ng mga mangingisda
☒ 3) Samahan ng mga babae ☐ 6) Isulat kung may ibang grupo: _____

E3. Ano ang problema sa inyong lugar? Pumili ng limang sagot.

- ☒ 1) Walang trabaho ☒ 2) Kahirapan
☐ 3) Walang malinis na tubig inumin ☐ 4) Walang patubig sa sakahan
☐ 5) Kulang sa pagkain ☐ 6) Kakapusan ng gamitsapag-aaral
☐ 7) Tulong sa pag-aaral ☐ 8) kakapusan ng ayuda sa pangkabuhayan
☐ 9) Kapus sa magtuturo ☐ 10) Kapus sa puhunan pangnegosyo
☐ 11) Kapus sa gamit ang ospital
☐ 12) Kapus sa imprastraktura, daan, at masakayn
☐ 13) Kapus sa imprastraktura, basketbol and volleyball court
☐ 14) Kapus sa gamit pangsakahan/palaisdaan/pangingisda
☐ 15) Kapus sa ayuda upang itaas ang antas ng mga organisasyon
☐ 16) Wastong paraan ng pagtapon ng basura
☐ 17) Mga ibang problema, pakisulat: _____

E4. Sa iyong pananaw, ano ang dapat gawin para malutas ang mga problema sa inyong lugar? Isulat sa patlang ang tatlong sagot.

1. MAGKARON NG HRING SA TRABAHO
2. _____
3. _____

Section F. Pananaw tungkol sa proyekto ng pagmimina (Perception on the proposed project)

F1. Alam mo ba ang proyektong pag-mimina sa inyong barangay? ☒ Alam ☐ Hindi Alam

F2. Kung alam, paano mo nalaman?

- ☐ 1) Sa talakayan ☒ 2) sa barangay ☒ 3) Pagpupulong
☐ Ibang paraan ng impormasyon, pakisulat: _____

F3. Sang ayon kaba sa proyektong pagmimina? ☒ Sang ayon [] Hindi sang ayon

F4. Kung sang ayon, sa iyong palagay ano ang magandang dulot ng proyekto sa iyo at sa inyong lugar?

- ☒ 1) Magkakaroon ng trabaho [] 2) pwedeng mag negosyo
[] 3) dagdag kitasa barangay at salungsod [] 4) Ibang magandang proyekto para sa barangay
[] 5) Iba pang naiisip na possibleng magandang dulot pakisulat:

F5. Kung hindi sang ayon, saiyong palagay ano ang masamang epekto ng pagmimina sa inyong lugar?

- [] 1) Pinsala sa kapaligiran
[] 2) Walang trabaho/hanap buhay ngayon
[] 3) Magkakaroon ng kaguluhan sa aming lugar
[] 4) Dadami ang mga taong taga labas napupunta sa aming lugar
[] 5) Iba pang naiisip, Pakilista:

F6. Sa kabuoan, sumasang-ayon kaba sa itatayong proyektong Norweah Metals and Mineral Mining Project?

☒ Sang ayon [] Hindi Sang ayon

F7. Sa kabuoan, susuporta kaba sa itatayong Norweah Metals and Mineral Mining Project?

☒ Sang ayon [] Hindi Sang ayon

Maraming Salamat!

PUBLIC SCOPING:

NORWEAH METALS AND
MINERAL MINING
PROJECT



OUTLINE

- ☐ Project Background
 - Project Description
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PROJECT BACKGROUND



PROJECT BACKGROUND

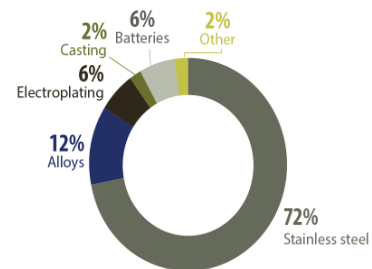


Project Description

Project Name	:	NORWEAH Metals and Mineral Mining Project
Project Proponent	:	NORWEAH Metals and Minerals Co., Inc.
Nature of Project	:	Mining and Quarrying
Project Location	:	Boa, Cagdianao, Dinagat Island within Parcel III of Surigao Mineral Reservation
MPSA No.	:	MPSA No. 2412007-XIII-SMR
Total Project Area	:	226.0235 hectares
Minerals and Extraction	:	1.5M MT Nickel and 50,000T Chromite per Year
Contact Person	:	Hilario G. Paguitan Chairman, CEO +6386 365 1471
Email Address	:	norweahmetalsminerals@yahoo.com

Project Rationale

- ❑ The Norweah Metals and Minerals Co., Inc. is a Filipino-owned company duly recognized by the Philippine government as one of potential investors in optimizing potential socio-economic benefits of mineral resources, especially Nickel and Chromite, through sustainable and responsible mining operations.
- ❑ At present, the company is responding to an increasing demand for nickel and chromite in local and global market.



Project Rationale

- ❑ Nickel ore is mined in 23 countries and smelted or refined in 25 countries in the world.
- ❑ Australia has one of the world's largest reserves at 20 million metric tons, or 22% of the global reserves.
- ❑ Indonesia was the highest producer on nickel from mines in 2020 with approximately 760,000 metric tons of production or 30.4% of global production while Philippines ranked second.

Ranking	Country	Thousand tonnes	Percentage of total
1	Indonesia	760	30.4%
2	Philippines	320	12.8%
3	Russia	280	11.2%
4	New Caledonia	200	8.0%
5	Australia	170	6.8%
6	Canada	167	6.7%
7	China	120	4.8%
8	Brazil	73	2.9%
9	Cuba	49	2.0%
-	Other countries	353	14.1%
Total		2,500	100.0%

Project Rationale

- ❑ In 2009, global nickel consumption amounted to approximately 1.29 million metric tons. Since then, year- over-year nickel consumption increased rapidly to more than 2.44 million metric tons in 2020. In 2020, the demand for nickel was around 2.45 million metric tons and was forecasted to increase by 3.18 million metric tons worldwide this year, 2022.
- ❑ The increasing demand for nickel and the potential reserves of this element in the country, particularly in Barangay Boa, Cagdianao, Dinagat Island, drives the interest of the company to engage in metals and minerals mining .

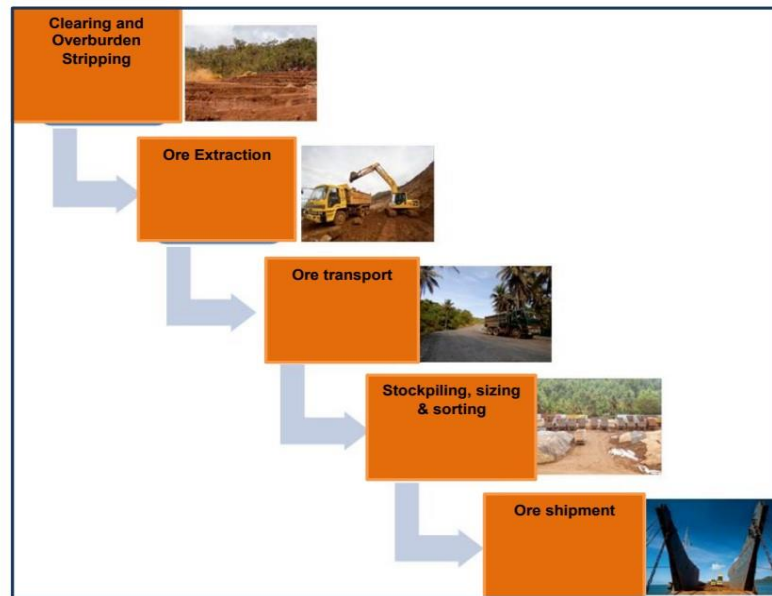
Project Location



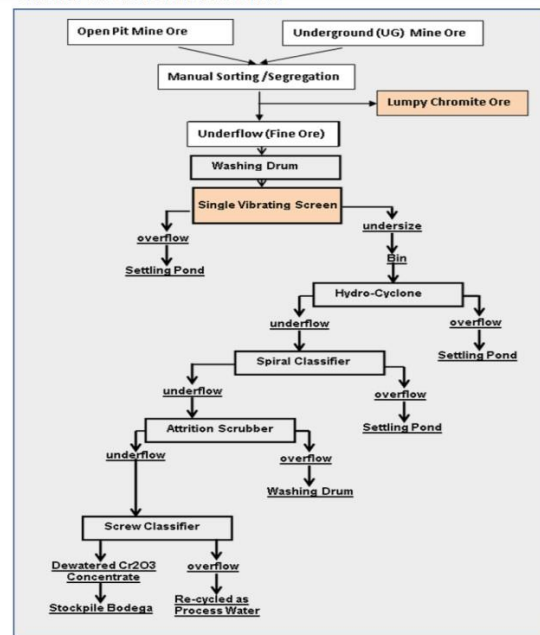
Corner	Latitude	Longitude
1	10° 06' 30.00"	125° 39' 00.00"
2	10° 08' 00.00"	125° 39' 00.00"
3	10° 08' 00.00"	125° 39' 22.50"
4	10° 07' 45.00"	125° 39' 07.50"
5	10° 07' 41.25"	125° 39' 22.50"
6	10° 07' 15.00"	125° 39' 22.50"
7	10° 07' 07.50"	125° 39' 07.50"
8	10° 07' 00.00"	125° 39' 07.50"
9	10° 06' 41.25"	125° 39' 52.50"
10	10° 06' 37.50"	125° 39' 56.25"
11	10° 06' 37.50"	125° 40' 07.50"
12	10° 06' 40.00"	125° 40' 15.00"
13	10° 06' 30.00"	125° 40' 22.50"

MINING PROCESS

Open-Cut Nickel Mining



Chromite Mining



PROJECT COMPONENTS

Project Components

Component	Description
Exploration	<ul style="list-style-type: none">Activities include site preparation, topographic and location survey, geologic mapping, test pitting, laboratory analysis, trenching and core drilling.
Construction and development	<ul style="list-style-type: none">This component will commence after the advanced exploration are completed. This involves the construction of haul and access roads, causeway, stockpiles and dumps, pollution control devices and support facilities such as office building, housing, security posts workshop, warehouse, fuel depot, nursery and other guard and security facilities; laboratory, drainage canals, water and power utilities

Operation phase	<ul style="list-style-type: none"> NORWEAH will adopt surface mining method in extracting nickel chromite. Contour method of surface mining will be employed. The following are the activities during the operation: actual extraction of ore, implementation of progressive rehabilitation, continued implementation of EMMP and SDMP, hauling of ore to the designated area
Processing and shipping	<ul style="list-style-type: none"> This component of mining involves the following activities: segregating ore from waste rock, transfer of waste rock to waste dumps, transfer of ore to the final ore stockpile area, solar drying of ore to reduce moisture between 20 and 35 per cent, shipping of solar dried and clean ore
Abandonment	<ul style="list-style-type: none"> Decommissioning will be undertaken once the economic extraction is optimized. Decommissioning and mine closure should be strictly in accordance with the approved FMRDP. The activities are: removal of equipment, Rehabilitation of mined-out areas, mine yards, waste dumps and siltation traps and ponds, transfer/donation of fixed structures to host LGU.

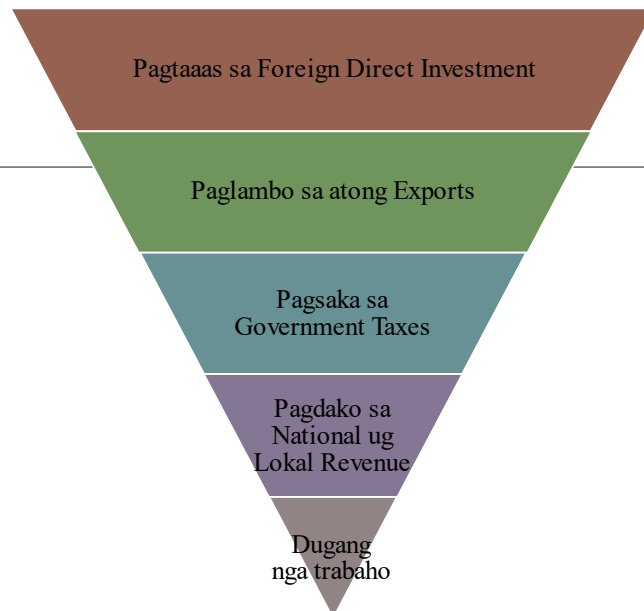
Estimated Project Cost



4 Billion Pesos

POTENTIAL BENEFITS

BENEFITS



ENVIRONMENTAL COMPLIANCE AND MITIGATION PLANS

Major Activities Description / Details Key Environmental Aspects or Activities	Potential Impact, Nature and Estimates of Major Emissions	Impact Mitigation, Built-in Management Measures and Facilities Planned
Pre-Construction Phase		
Land	Compatibility of land use	Zoning certificate
Construction Phase		
Release of Sox, NOx, PM and dust from construction equipment	Air pollution	<ul style="list-style-type: none">· Use of low emission construction equipment· Regular water sprays/ sprinkling in construction site· Use of PPE among workers· Construction operation during day time· Install traffic signs/signages and hiring of spotters· Regular maintenance of equipment and vehicles
Noise from construction equipment	Noise pollution	

Accidents	Endanger the health and safety of community and workers	<ul style="list-style-type: none"> · Creation and strict implementation of 5S and health and safety protocols · Regular safety inspection, meetings, and re-orientations · Provision of first aid kits in strategic locations
Solid wastes such as papers, packaging material and construction debris	Land pollution	<ul style="list-style-type: none"> · Dispose of waste in accordance with RA 9003. · Practice segregation and 3Rs
Oil and grease from construction vehicle	Land pollution	<ul style="list-style-type: none"> · Regular maintenance of vehicle · Put sawdust on the area of contamination



People	<ul style="list-style-type: none"> - Displacement and loss of livelihood - Fear of non-employment due to possibility of hiring non-local laborers - Fear of decrease of water supply due to degradation of watershed - Fear of their health and safety 	<ul style="list-style-type: none"> · Develop and implement IEC to change the mind-set of host communities toward the project · Hiring of locally qualified labor. · Involve the community in the design, formulation and implementation social responsibility program · Conduct skill and inventory assessment of local labor force · Develop appropriate livelihood program for the host community especially women and OSY
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Clearing and grubbing resulting to generation of vegetal waste	Loss of vegetation Land pollution	<ul style="list-style-type: none"> · Conduct of inventory of species · Balled important and endangered species for preservation · Dispose of vegetal wastes in accordance with RA 9003
Overburden and excavated materials from construction of tailings pond	Land pollution	<ul style="list-style-type: none"> · Re-use overburden in nursery and rehab works later · Re-use excavated materials in land development in other areas
Sediment laden surface run-off	Water pollution	<ul style="list-style-type: none"> · Construction of temporary settling ponds

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Operation Phase		
<ul style="list-style-type: none"> - Land clearing - Surface mining of laterite deposits - Stockpiling of mined ore - Transport and shipment of produced ore 	Land <ul style="list-style-type: none"> - Removal of top soil - Alteration of topography - Change in land use 	<ul style="list-style-type: none"> - Blockmining - Progressive revegetation - Practiceresponsiblemining - Applybestminepractices - Considerexistingtopographyinbuilding support facilities - Provision of erosion control structures
	Water <ul style="list-style-type: none"> - Increase TSS, heavy metal and turbidity of surface and marine waters 	<ul style="list-style-type: none"> - Provision of siltation ponds - Proper maintenance of drainage system - Progressive rehabilitation of mined out areas
	Air <ul style="list-style-type: none"> - Increase in PM10, SOx, and NOx in the air - Increase level of noise 	<ul style="list-style-type: none"> - Proper and regular maintenance of vehicle and equipment - Watering of dust generating grounds and roads - Establishment of buffer zone around the mine site - Tree planting
	Marine Ecosystem <ul style="list-style-type: none"> - Coral bleaching - Hampered growth of marine organisms - Reduction in marine diversity 	<ul style="list-style-type: none"> - Provision of siltation ponds - Progressive rehabilitation
	Terrestrial Ecosystem <ul style="list-style-type: none"> - Habitat degradation and fragmentation - Loss of wildlife 	<ul style="list-style-type: none"> - Retention of vegetation in areas with low mineral deposits - Planting of endemic tree species - Progressive rehabilitation of mined out areas - Strict observance of ANR regulations

	Economic Generation of revenues for LGU from taxes, permits, and royalties Employment generation Population congestion Peace and order problem Security breaches	<ul style="list-style-type: none"> - Benefits from development programs thru implementation of SDMP which is equivalent to 1.5% of operating cost - Total taxes – 60% to the national government and 40% to local government - Development of SME - Alternative livelihood for the host communities - IEC on nature of jobs available and the required qualification - Consultation on job requirement - Skills training - Livelihood opportunities for the host community and immediate vicinity - Coordination with BLGU to control of entry of establishment - Formulate and implement effective IEC program
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Abandonment Phase		
<ul style="list-style-type: none"> - Rehabilitation of mined-out areas - Dismantling of structures 	<ul style="list-style-type: none"> - Filling open pit with waste rock - Erosion of newly filled soils - Restoration of vegetative cover in the mined-out area - Restoration of wildlife habitat - Return of fauna and increase in population of small animals - Reduction and eventual termination of employment - Termination of revenues from taxes, permits and royalties 	<ul style="list-style-type: none"> · Proper drainage and soil erosion control measures · Use endemic species · Restore habitat by improving vegetation · Promote alternative livelihood · Conduct IEC for decommissioning · Provide counselling



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