COVER SHEET

C	S	2	0	0	8	1	1	5	3	0

SEC Registration Number

NICKEL ASIA CORPORATION AND SUBSIDIARIES

(Company's Full Name)

28th Floor NAC Tower, 32nd Street Bonifacio Global City, Taguig City

(Business Address: No. Street City/Town/Province)

Emmanuel L. Samson

(Contact Person)

(632) 8892-6669

(Company Telephone Number)

1	2		3	1

Month *Day*

(Fiscal Year)

1	7	-	A	

(Form Type)

0	6		1st Friday

Month *Day*

(Annual Meeting)

Not Applicable

(Secondary License Type, If Applicable)

CRM

Dept. Requiring this Doc.

N/A

Amended Articles Number/Section

Total Amount of Borrowings

94

Total No. of Stockholders

₱2,511.4 million	**₱–**
Domestic	Foreign

To be accomplished by SEC Personnel concerned

File Number

LCU

Document ID

Cashier

STAMPS

Remarks: Please use BLACK ink for scanning purposes.

S.E.C. Number CS200811530
File Number______

NICKEL ASIA CORPORATION
(Company's Full Name)

28th Floor NAC Tower, 32nd Street,
Bonifacio Global City, Taguig City
(Company's Address)

+63 2 8892 6669 / +63 2 7798 7622
(Telephone Numbers)

December 31
(Fiscal Year Ending)
(month & day)

SEC FORM 17-A Annual Report
Form Type

____
Amendment Delegation (If applicable)

December 31, 2019
Period Ended Date

____
(Secondary License Type and File Number)

SECURITIES AND EXCHANGE COMMISSION

SEC FORM 17-A

ANNUAL REPORT PURSUANT TO SECTION 17 OF THE SECURITIES REGULATION CODE AND SECTION 141 OF THE CORPORATION CODE OF THE PHILIPPINES

1. For the fiscal year ended: **DECEMBER 31, 2019**
2. SEC Identification Number: **CS200811530**
3. BIR Tax Identification No.: **007-085-191-000**
4. Exact name of issuer as specified in its charter **NICKEL ASIA CORPORATION**
5. Province, Country or other jurisdiction of incorporation or organization: **PHILIPPINES**
6. Industry Classification Code: [ ] (SEC Use Only)

7. Address of principal office — Postal Code
   28th Floor NAC Tower, 32nd Street, Bonifacio Global City, Taguig City — **1634**
8. Issuer's telephone number, including area code**: +63 2 8892 6669 / +63 2 7798 7622**
9. Former name, former address, and former fiscal year, if changed since last report.
   N/A
10. Securities registered pursuant to Sections 8 and 12 of the SRC, or Sec. 4 and 8 of the RSA

Title of Each Class	Number of Shares of Common Stock Outstanding and Amount of Debt Outstanding
Common Stock	**13,632,970,117 shares**
Long-term Debts	**₱2,511.4 Million**

11. Are any or all of these securities listed on a Stock Exchange.
    Yes [**X**] No [ ]

    If yes, state the name of such stock exchange and the classes of securities listed therein:
    PHILIPPINE STOCK EXCHANGE **Common Stock**

12. Check whether the issuer:
    (a) has filed all reports required to be filed by Section 17 of the SRC and SRC Rule 17.1 thereunder or Section 11 of the RSA and RSA Rule 11(a)-1 thereunder, and Sections 26 and 141 of The Corporation Code of the Philippines during the preceding twelve (12) months (or for such shorter period that the registrant was required to file such reports);
    Yes [**X**] No [ ]
    (b) has been subject to such filing requirements for the past ninety (90) days.
    Yes [**X**] No [ ]

13. State the aggregate market value of the voting stock held by non-affiliates of the registrant.

    As at December 31, 2019, 4,595,864,986 shares with a market price of ₱3.39 or an aggregate amount of ₱15,579,982,303 were held by non-affiliates.

NICKEL ASIA CORP.

May 19, 2020

Mr. Jose Valeriano B. Zuño III
Head - Disclosure Department
Philippine Stock Exchange Tower,
5th Avenue corner 28th Street, BGC Taguig City

Mr. Vicente Graciano P. Felizmenio, Jr.
Director - Markets and Securities Regulation Department
Securities and Exchange Commission
Secretariat Building, PICC Complex
Roxas Boulevard, Pasay City

RE : 2019 SEC Form 17-A Annual Report
x == x

Gentlemen:

In accordance with the Securities Regulation Code, we are submitting herewith a copy of our Company's SEC Form 17-A Annual Report as at and for the year ended December 31, 2019.

We trust everything is in order.

Very truly yours,

Emmanuel L. Samson
SVP – Chief Financial Officer

NICKEL ASIA CORPORATION
17-A ANNUAL REPORT 2019

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PART I – BUSINESS AND GENERAL INFORMATION

Item 1. BUSINESS

A. OVERVIEW

Nickel Asia Corporation (the "Company", "Parent Company", the "Group" or "NAC") was incorporated on July 24, 2008 with the Philippine Securities and Exchange Commission (SEC) and was listed with the Philippine Stock Exchange on November 22, 2010.

The Group has four operating mines operated by its subsidiaries: the Rio Tuba mine in Bataraza, Palawan operated by Rio Tuba Nickel Mining Corporation (RTNMC); the Taganito mine in Claver, Surigao Del Norte operated by Taganito Mining Corporation (TMC); the Tagana-an mine in Tagana-an, Surigao Del operated by Hinatuan Mining Corporation (HMC); and the Cagdianao mine in Cagdianao, Dinagat Islands operated by Cagdianao Mining Corporation (CMC).

NAC exports saprolite and limonite ore to customers in Japan and China. The Company's customers use its ore for the production of ferronickel and nickel pig iron (NPI), both used to produce stainless steel, and for the production of pig iron used for carbon steel. NAC is also the exclusive supplier of limonite ore from its Rio Tuba mine to the Coral Bay plant, the country's first hydrometallurgical nickel processing plant owned by Coral Bay Nickel Corporation (CBNC), where NAC has a 10% equity interest. CBNC became operational in 2005 and currently operates at a capacity of 24,000 tonnes of contained nickel and 2,000 tonnes of contained cobalt per year in the form of a mixed nickel-cobalt sulfide. It has proven to be the world's most efficient facility using the high-pressure acid leach (HPAL) process.

The Parent Company also has a 10% equity interest in Taganito HPAL Nickel Corporation (THNC) wnich operates the country's second hydrometallurgical nickel processing plant. THNC's HPAL plant currently operates at a capacity of 30,000 tonnes of contained nickel and 2,500 tonnes of contained cobalt per year in the form of a mixed nickel-cobalt sulfide. The Taganito mine of the Company's subsidiary, Taganito Mining Corporation (TMC) supplies all of the limonite ore for the plant.

Apart from NAC's four operating mines, NAC has other properties in various stages of exploration for nickel, while continuing to seek opportunities in copper and gold. In November 2010, the Parent Company concluded the purchase of Cordillera Exploration Co., Inc. (CExCI) from Anglo American Exploration (Philippines), Inc. ("Anglo American"), with four properties in the Central Cordillera of northern Luzon that are prospective for gold and copper. The purchase marks the Parent Company's first step in its vision to become a diversified mineral resource company. In November 2011, SMM acquired 25% equity in CExCI with an option to purchase additional shares to increase its total equity to 40%.

In 2015, CExCI identified a new property in the province of Zambales for exploration and development under Newminco Pacific Mining Corporation (Newminco), which is also prospective for gold and copper. In relation to this, SMM put in an additional investment of US$2.8 million to increase its ownership in CExCI from 25% to 40%. Newminco is the holder of an Exploration Permit (EP) application for areas located in Zambales. In 2019, CExCI acquired from Marian Mineral Exploration Co., Inc. (Marian) and Olympus Mineral Exploration Co., Inc. (Olympus) the right to apply for the conversion of the Application for Mineral Production Sharing Agreement (APSA) No. 000021-II issued in favor of Marian and Olympus into an EP Application, EP and/or Mineral Agreement, and any mode of mineral agreement that may be applied for in the 6,325 hectare area located in Cordon, Isabela and Diadi, Nueva Vizcaya subject of the APSA. CExCI applied for the conversion of APSA No. 000021-II into an exploration permit. In January 2020, the Mines and Geosciences Bureau (MGB) Region 2 office approved the conversion of APSA No. 000021-II into an exploration permit in favor of CExCI.

In August 2015, the Parent Company also concluded the purchase of 100% equity interest in Dinapigue Mining Corporation (DMC), which is the claim owner of the Isabela Nickel Project in Dinapigue, Isabela.

NAC also moved into the area of renewable energy and power generation. In 2018, it completed the construction of a 10 megawatt (MW) diesel power plant at a cost close to ₱900.0 million. Power is currently being sold to the Surigao del Norte Electric Cooperative, Inc. (SURNECO) under a Power Supply Agreement. The diesel power plant, which commenced operations in 2018, is designed to alleviate the shortage of power particularly in Surigao City.

NAC's entry into the renewable power business was formalized in 2015 with the conversion of a ₱446.0 million loan to equity and an additional equity infusion of ₱474.0 million, which corresponds to an equity ownership in Emerging Power, Inc. (EPI) of 66%. In 2016, the Parent Company subscribed to additional common shares of EPI for ₱660.0 million and this increased the Parent Company's equity interest in EPI to 70.92%. As at December 31, 2019, the Parent Company's equity interest in EPI stood at 86.29% as a result of fresh equity infusion of ₱1.5 billion in September 2017.

EPI's mission is to engage in power generation exclusively from renewable sources. EPI has a number of Renewable Energy Service Contracts, principally a 100MW solar and 50MW wind service contract under Jobin-SQM, Inc. (Jobin), located in the Subic Bay Freeport Zone; two (2) geothermal service contracts under Biliran Geothermal, Inc. (BGI), in the province of Biliran, Leyte; and a geothermal service contract under Mindoro Geothermal Power Corp. (MGPC) in Naujan, Oriental Mindoro. In 2019, EPI divested of its entire equity interest in Manta Energy, Inc. (MEI), a Retail Electricity Supplier, to Shell Gas B.V. MEI also divested its 50% ownership of Mantex Services, Inc. (Mantex) to G.A.A. Delgado Inc. Mantex provides advisory, management and investments services for infrastructure projects.

Jobin completed testing and commissioning of 32.337MWp of solar power, comprising Phases I and II of the Sta. Rita Solar Power Project (Solar Project) in 2017. In 2018, the Energy Regulatory Commission (ERC) extended the effectivity of Jobin's Provisional Authority to Operate the 32.337MWp solar plant until May 14, 2019. The extension was issued pending approval of Jobin's dedicated point to point limited facilities to connect to the transmission system. On December 11, 2018, the ERC authorized Jobin to develop and own a dedicated point-to-point limited facility to connect the 100MWp Jobin solar power plant to the Luzon Grid of the National Grid Corporation of the Philippines (NGCP) via a direct connection at NGCP's Subic Substation. On January 15, 2019, the ERC issued a Certificate of Compliance (COC No. 19-01-M-00168L) to Jobin which will be valid for a period of five (5) years from November 16, 2016 to November 15, 2021. Jobin is expected to commence the construction of Phase III of the Solar Project, or an estimated additional 30MWp in 2020. The additional capacity is expected to become operational by end-2020.

With respect to Biliran geothermal project, where five (5) wells have been drilled by EPI's 40% partner, Biliran Geothermal Holdings, Inc., fluid management studies have been completed on one particular well, with positive results with respect to acid control.

In the Montelago project, the two (2) geothermal wells drilled in 2016 have not reached sufficiently high temperatures to warrant moving ahead to development. Various options are currently being considered in order to drill the northern portion of the geothermal field.

In 2019, the Group saw continued developments in the following areas:

Jobin has fine-tuned its operations and maintenance, keeping a lean team that is performing at and above solar energy industry standards. With its existing 32.337MWp solar energy facility operating for over two years, and its infrastructure (i.e. transmission, substations, roads, warehouse, site office, etc.) is in place, Jobin is immediately plug-and-play-scaleable up to 150MW of capacity. With only minor works, such as laying down an additional transmission cable and construction of an additional transformer bay, Jobin's entire 800-hectare facility can easily accommodate 300MW of capacity that can be evacuated to the grid. Jobin has no interconnection congestion issues, as it is the only renewable energy facility that is connected to the main Philippine Grid via a 230kV transmission line. Jobin has been selling its electricity output via the Wholesale Electricity Spot Market (WESM) since its commercial operations date, and the actual average for 2017 was higher than solar off-take agreements being closed at this same time period. Once higher than spot market off-take agreements are in place, Jobin is primed to continue solar/wind equipment installation and scale up fast.

MGPC's northern portion of its exclusive service contract area has undergone a more detailed assessment in 2017 by GeothermEx – a leading American geothermal advisory firm. They have also confirmed that the existing wells in the southern portion can net out at least 3.5MW of power. EPI has been in discussions with a few rare groups familiar with geothermal investments to strategize how to further minimize drilling risk. With a strategic partner, MGPC is preparing a development plan guided in general by the Geothermex report and other technical analyses. Once firm, this wholly-owned EPI subsidiary is poised to deliver much needed power to the island grid of Mindoro.

On February 26, 2019, the Department of Energy (DOE) issued a Certificate of Confirmation of Commerciality of the 10MW Montelago Geothermal Power Project owned by MGPC. This serves as proof that Geothermal Renewable Energy Service Contract (GRESC) No. 2010-02-013 is converted from pre-development to development stage.

BGI successfully split its existing GRESC into two (2) in 2017. Where said GRESC previously almost covered the entire island province of Biliran, the new setup delineates the southern portion as Biliran 1 and the northern portion as Biliran 2. Biliran 1 covers the existing developed infrastructure (i.e., four (4) well pads, eight (8) standard deep wells, roads, etc.) and has a Probability-90 Assessment that confirms a 100MW capacity. Biliran 2 is the yet-to-be-developed area save for surface studies and a Probability-50 Assessment of some 170MW capacity. This delineation allows BGI to focus on the more immediately executable Biliran 1 and gives BGI more time to develop Biliran 2. For 2019, Biliran 1 continued its facility maintenance while making plans for a phased power generation development and Biliran 2 has continued its Information Education and Communication Campaign with its local communities and the local government unit (LGU), reconnaissance surveys, and acquisition of permits.

With its foray into the area of renewable energy, NAC is slowly becoming a group more focused on harnessing the potential of its natural resources to benefit the communities where the Group operates and the country in general.

Fundamental to the way NAC does business as a responsible corporate citizen is its commitment to operate in a sustainable manner, protecting the environment, nurturing active communities and ensuring the safety and well-being of everyone involved in its operations. For this, the Group has been consistently recognized by the Government, the industry and by other award-giving bodies.

As an evolving natural resources company, NAC is committed to responsible mining and to the highest standards in everything that it does.

B. CORPORATE OBJECTIVE

NAC is focused on growth. At the same time, the Company takes its responsibilities toward safety, environmental protection, community relations and development seriously. The Company believes that sustainable development is the only way forward for any mining operation and it exerts great effort to live by its principles. NAC is committed to responsible mining and to running every facet of its operations in a world-class manner.

The Group is also committed to provide the present and future generations a better life with clean and renewable energy which is cost effective, reliable, sustainable, and environmentally friendly.

C. PRODUCT MIX

NAC produces two (2) types of nickel ore, namely saprolite and limonite. Saprolite ore is nickel ore with iron content of less than 20% and limonite ore is nickel ore with iron content of 20% or higher.

	Saprolite		Limonite	
Type of Ore:	Hi Grade ~1.7% Ni	Mid Grade 1.3-1.6% Ni	High Fe 0.6-0.9% Ni; 48-50% Fe	Low Grade 1.0-1.2% Ni; ≥30% Fe
Supplied By:	Rio Tuba Taganito Cagdianao Hinatuan	Rio Tuba Taganito Cagdianao Hinatuan	Rio Tuba Taganito Hinatuan	Rio Tuba Taganito
Sold To:	Japan FeNi Smelter / China NPI Smelter (RKEF)	Japan FeNi Smelter / China NPI Smelter (RKEF)	China NPI Smelter (Blast Furnace)	Philippines CBNC THPAL
Final Products:	Ferronickel	Ferronickel / High and Medium Grade NPI: 10-12% Ni	Low Grade NPI (1-3% Ni)	Ni-Co Sulfide 55% Ni

The Group ships out two (2) types of saprolite ore: high-grade and midgrade. High-grade saprolite has a nickel content of about 1.7% and above while mid-grade saprolite ore has a nickel content of between 1.3% to 1.6%.

Most of the Group's high-grade saprolite ore are sold to Pacific Metals Co., Ltd. (PAMCO), which uses the material as feed for its ferronickel smelters. The Company's mid-grade saprolite ore are sold to Japanese and Chinese clients. Its Chinese clients use the material as feed for electric furnaces for the production of high and medium-grade NPI.

NAC sells two (2) types of limonite ore: high-iron and low-grade. High iron limonite ore has a nickel content of less than 1% and an iron content of 48% to 50%. Low-grade limonite ore has a nickel content of 1% to 1.2% and an iron content of at least 30%.

The Company's high-iron limonite ore are sold to Chinese customers who use the material as feed for blast furnaces for the production of low-grade NPI. Finally, low-grade limonite ore from Taganito and Rio Tuba are utilized as feed for the Taganito and Coral Bay HPAL plants, respectively.

D. SUBSIDIARIES

The Parent Company and its subsidiaries were separately incorporated and registered with the SEC. Below are the Parent Company's ownership interests in its subsidiaries:

	Effective Ownership	
	2019	2018
Subsidiaries		
Hinatuan Mining Corporation (HMC)	**100.00%**	100.00%
Cagdianao Mining Corporation (CMC)	**100.00%**	100.00%
La Costa Shipping and Lighterage Corporation (LCSLC) [a]	**100.00%**	100.00%
Dinapigue Mining Corporation (DMC, formerly Geogen Corporation)	**100.00%**	100.00%
Samar Nickel Mining Resources Corporation (SNMRC)	**100.00%**	100.00%
Coral Pearl Developments Limited (CPDL) [e]	**100.00%**	–
Falck Exp Inc. (FEI) [b]	**88.00%**	88.00%
Cordillera Exploration Co., Inc.	**71.25%**	71.25%
Newminco Pacific Mining Corporation [c]	**71.25%**	71.25%
Taganito Mining Corporation	**65.00%**	65.00%

	Effective Ownership	
	2019	2018
Rio Tuba Nickel Mining Corporation (RTN)	**60.00%**	60.00%
Emerging Power Inc.	**86.29%**	86.29%
Mindoro Geothermal Power Corporation [(d)]	**86.29%**	86.29%
Biliran Holdings Inc. (BHI) [(d)]	**86.29%**	86.29%
Jobin-SQM, Inc. [(d)]	**86.29%**	86.29%
Northern Palawan Power Generation Corporation (NPPGC) [(d)]	**86.29%**	–
Biliran Geothermal Inc. [(d)]	**51.77%**	51.77%
Manta Energy, Inc. (MEI) [(d,f)]	**–**	86.29%
Mantex Services, Inc. (Mantex) [(d,g)]	**–**	43.15%

(a) Indirect ownership through HMC
(b) Indirect ownership through HMC, CMC and TMC
(c) Indirect ownership through CExCI
(d) Indirect ownership through EPI
(e) Incorporated in British Virgin Islands (BVI) on June 18, 2019
(f) Disposed on September 18, 2019
(g) Disposed on August 28, 2019

Hinatuan Mining Corporation
HMC was incorporated on October 9, 1979 and was granted rights over the Taganaan property in 1980. Development of the property commenced in 1981 and the first commercial shipment from the Taganaan mine was made in 1982. The size of the property was expanded in 1983 with the acquisition of additional claims on adjacent properties. HMC is also the claim owner of the Manicani property in Manicani Island, Eastern Samar.

Cagdianao Mining Corporation
CMC was incorporated on July 25, 1997 and acquired the right to operate the Cagdianao mine in 1998.

La Costa Shipping and Lighterage Corporation
LCSLC was incorporated on October 23, 1992, and is primarily engaged in the chartering out of Landing Craft Transport (LCT) and providing complete marine services. LCSLC was acquired by HMC in April 2010. In May 2014, LCSLC sold all of its LCTs to HMC for a consideration.

Dinapigue Mining Corporation
DMC was incorporated on October 9, 1998, and is primarily engaged in the exploration, exploitation and mining of metallic and non-metallic minerals, including, but not limited to, nickel, iron, cobalt, chromite and other associated mineral deposits. DMC was acquired by the Parent Company in August 2015. On March 5, 2018, the SEC approved the change in its corporate name to Dinapigue Mining Corporation. DMC has not yet started commercial operations and is currently under development stage.

Samar Nickel Mining Resources Corporation
SNMRC was incorporated on March 11, 2010, and is primarily engaged in the exploration, mining and exporting of mineral ores. SNMRC has not yet started commercial operations.

Coral Pearl Developments Limited
CPDL was incorporated on June 18, 2019 in the BVI under the BVI Business Companies Act 2004, and is primarily engaged in the leasing of aircraft.

Falck Exp Inc.
FEI was incorporated on November 22, 2005, and is primarily engaged in the business of exploring, prospecting and operating mines and quarries of all kinds of ores and minerals, metallic and non-metallic. FEI is currently undergoing dissolution.

Cordillera Exploration Co., Inc.
CExCI was incorporated on October 19, 1994 primarily to engage in the business of large-scale exploration, development and utilization of mineral resources. CExCI has a number of mining properties at various stages of exploration. It is currently not engaged in any development or commercial production activities.

Newminco Pacific Mining Corporation
Newminco was incorporated on October 9, 2006 and is primarily engaged in the exploration, mining, development, utilization, extraction, beneficiation and marketing of minerals and mineral resources. Newminco was acquired by CExCI in December 2015. It is currently not engaged in any development or commercial production activities.

Taganito Mining Corporation
TMC was incorporated on March 4, 1987, and is primarily engaged in the mining and exporting of nickel saprolite and limonite ore, and exploration activities. The first commercial shipment from the Taganito mine was made in 1989. TMC also provides services to THNC which involves the handling, hauling and transportation of materials required in the processing operations of THNC.

Rio Tuba Nickel Mining Corporation
RTN was incorporated on July 15, 1969 to develop the nickel ore deposits discovered at the Rio Tuba mine site in 1967. It was granted rights over the Rio Tuba property in 1970 and commenced mining in 1975. RTN made its first commercial shipment in 1977. RTN also provides services to CBNC which involves the handling, hauling and transportation of materials required in the processing operations of CBNC.

Emerging Power Inc.
EPI was incorporated on October 16, 2007, and is primarily engaged in the renewable energy business. EPI was acquired by the Parent Company by way of loan conversion into equity in July 2015. EPI is the holder of GRESC No. 2010-02-013. On February 16, 2016, the DOE approved EPI's application to assign its rights and obligations under the GRESC to MGPC under Certificate of Registration No. 2016-02-060.

Mindoro Geothermal Power Corporation
MGPC was incorporated on May 7, 2014, and is primarily engaged in the renewable energy business. MGPC project is estimated to supply 40MW of power over twenty five (25) years.

Biliran Holdings Inc.
BHI was incorporated on July 31, 2015, and is primarily engaged in investing in and holding of assets of every kind and description, as and to the extent permitted by law. It is also registered, within the limits prescribed by law, to engage in the business of infrastructure, power generation, real estate, manufacturing, trading and agribusiness and to pay other evidences of indebtedness or securities of this or any other corporation.

Jobin-SQM, Inc.
Jobin was incorporated on January 6, 2010, and is primarily engaged in power business, including but not limited to power generation, power trading and supply to retail customers and end users. Jobin is the holder of Solar Energy Service Contract (SESC) No. 2013-10-039 and Wind Energy Service Contract (WESC) No. 2013-10-062 which both covers an area in the municipalities of Morong and Hermosa, Bataan. Jobin was acquired by EPI in July 2015.

Northern Palawan Power Generation Corporation
NPPGC was registered with the SEC on July 5, 2017 and is primarily engaged in the renewable energy business and in producing and generating electricity and processing fuels alternative for power generation.

Biliran Geothermal Inc.
BGI was incorporated on October 31, 2007. The principal activities of BGI are to explore, exploit, discover, develop, extract, dig and drill for, produce, utilize, refine, treat, process, transport, store, market, sell, use, supply, experiment with, distribute, manufacture, or otherwise deal in, any substance, minerals or

otherwise, which by itself or in contribution with other substances generate or emanate heat or power and to enter into and perform service contracts including geothermal services. BGI was acquired by BHI in December 2015. In 2014, BGI received the Confirmation of Commerciality for the Biliran Geothermal Project from the Philippine Government through the DOE.

Manta Energy Inc.
MEI was incorporated on May 21, 2007, and is primarily engaged in power business, including but not limited to power generation, power trading and supply to retail customers and end users. On July 5, 2016, the ERC approved MEI's registration as Registered Electric Supplier for a period of five (5) years, and renewable thereafter. On September 18, 2019, EPI sold its investment in MEI to Shell Gas B.V. for ₱100.0 million.

Mantex Services Inc.
Mantex was incorporated on March 26, 2012. Mantex is established primarily to provide technical, financial and public relations advisory, management and investments services for infrastructure projects. On August 28, 2019, MEI assigned its 50% ownership in Mantex to G.A.A. Delgado Inc. for a consideration.

E. RECENT DEVELOPMENTS

- On September 18, 2019, EPI sold its investment in MEI to Shell Gas B.V. for ₱100.0 million.
- On August 28, 2019, MEI assigned its 50% ownership in Mantex to G.A.A. Delgado Inc. for a consideration.

F. OUR STRATEGY

NAC'S strategy is designed to maximize the profitability of its existing base of operations while driving growth through its continuing involvement in downstream processing, exploration of its portfolio of properties, acquisition of new properties and growth of its renewable business. The key elements of its strategy are to:

1) *Pursue its brownfield and greenfield exploration programs to upgrade existing resources, and develop new reserves and resources* – The Company has an extensive exploration program involving both brownfield exploration, which consists of work at its existing operations to extend resources and to upgrade resources to reserves; and greenfield exploration, which involves exploring and delineating nickel lateritic deposits in its existing exploration properties. The Company owns approximately 100 man-portable drilling rigs that are suitable for drilling lateritic deposits in an economic manner.

2) *Acquire new properties or enter into operating agreements or joint ventures* – NAC believes that there is significant exploration potential in the Philippines for lateritic nickel deposits, and it intends to seek opportunities to increase its reserves of saprolite and limonite ore. Most prospective areas in the country are already subject to registered mineral claims; hence, the Company intends to access new exploration properties by acquiring rights from, or entering into joint ventures with, the applicable claim owners. In doing so, the Company will carefully evaluate such properties to ensure that the commitments that it will assume will commensurate to the potential of the properties it will acquire. In 2015, the Parent Company acquired the 100% equity interest of DMC, the claimowner of Isabela Nickel Project.

3) *Continue with gold and copper* prospects - The Philippines is well-endowed not only with lateritic nickel but also with gold and copper. World-class deposits have been discovered and substantial quantities of these metals have been mined in the past. The Company believes that the exploration potential nevertheless remains significant. In order to take advantage of this potential, the Company purchased CExCI from a subsidiary of Anglo American. CExCI has four (4) groups of mineral claims in northern Luzon that are prospective for gold and copper mineralization. Two (2) of these four (4) claims are located at Mankayan and the remaining two (2) claims are located at Manmanok property and Kutop. In April 2019, CExCI acquired from Marian Mineral Exploration Co., Inc. (Marian) and Olympus Mineral Exploration Co., Inc. (Olympus) these companies' rights under Application for Production Sharing Agreement (APSA) No. 000021-II pertaining to 6,325 hectares located in the

provinces of Isabela and Nueva Vizcaya. In July 2019, CExCI filed an application for the conversion of APSA No. 000021-II into an Exploration Permit. In January 2020, the Mines and Geosciences Bureau (MGB) Region 2 office approved the conversion of APSA No. 000021-II into an exploration permit in favor of CExCI. CExCI remains active in evaluating properties for possible acquisition. The Company believes that its extensive local knowledge, the experience of a number of its managers and technical staff in these metals and the quality of these properties make this acquisition an important step in its strategy to evolve into a diversified mining group. In 2015, the Parent Company, through CExCI, acquired Newminco, which is also prospective for gold and copper. Newminco is the holder of an EP renewal application in the municipalities of Cabangan, San Felipe, and San Marcelino, Zambales.

4) *Grow its renewable business* – NAC's goal is to develop, own, and manage a portfolio of renewable power assets in the Philippines that is diversified as to market, technology and location. The Company believes that its entry into the power business through EPI, which will concentrate exclusively on renewable energy sources, will provide significant opportunities to grow its revenues and sustain financial returns. At the same time, this activity will help alleviate the shortage of power in the country and contribute to economic growth in an environmentally friendly manner.

G. KEY STRENGTH

The Company believes in its key strength, which is*:*

Profitability underpinned by low cost production.
The foundation of the Company's business is its ability to operate profitably through the commodity price cycle because of its low costs. The Company ranks favorably in terms of mining costs when compared to other nickel mining companies. There are a number of factors that account for its low cost position:

- The Company benefits from favorable geologic conditions at all of its four (4) operating mines. Its lateritic nickel deposits are near-surface, blanket-like layered deposits with minimal overburden and generally five (5) to thirty (30) meters thick, enabling it to conduct simple contour mining using trucks and loaders without blasting, the use of chemicals or complex waste handling.

- Historically, there was generally no market for the Company's limonite ore, which needs to first be extracted in order to mine the more valuable saprolite ore. There was also no market for lower grades of saprolite ore. Limonite ore was then regarded as overburden and placed in stockpiles, while the Company undertook selective mining of high-grade saprolite ore, leading to relatively high mining costs. Since 2005, the Company has found customers for its limonite ore with the development of the China NPI market and the commissioning of the Coral Bay HPAL facility. In 2008, the Company experienced increasing demand from its customers for low-grade saprolite ore and in 2010, it saw an emerging demand for the use of low-nickel, high iron limonite ore for blending with iron ore in the production of carbon steel. The Company's ability to sell limonite ore rather than place it in stockpiles as waste, and its ability to sell lower grades of saprolite ore allows it to mine in a more efficient manner and reduces the unit cost per wet metric tonnes (WMT) of nickel ore that it mine, thus improving its profitability. The commencement of commercial operations of the Taganito HPAL facility in 2013 adds an additional outlet for the Company's limonite ore.

- On average, the nickel deposits at the Company's four (4) operating mines are located within three (3) to seven (7) kilometers from the applicable tidewater loading area, enabling easy hauling and transportation by barges and LCTs to customers' ships. The Company owns nine (9) LCTs and eleven (11) barges and leases additional barges and LCTs as needed. The short hauling distance from its mining operations to its loading facilities substantially contributes to the Company's favorable cost position.

- Because its lateritic nickel deposits are near surface and relatively shallow, the rehabilitation of its mining areas is a straightforward process. The process generally involves re-contouring of the mined areas, replacing the overburden and planting foliage. The Company undertakes progressive rehabilitation of its mined areas in order to spread costs, and the nature of its deposits results in a relatively manageable level of rehabilitation costs.

H. PERCENTAGES OF REVENUES FOR 3 YEARS

The following table summarizes percentages of NAC's revenues by year and region for the past three fiscal years:

Year	Japan			China			Philippines (CBNC and THNC)			Total		
	Sapro-lite	Limo-nite	Total	Sapro-lite	Limo-nite	Total	Sapro-lite	Limo-nite	Total	Sapro-lite	Limo-nite	Total
2019	11%	-	11%	59%	8%	67%	-	22%	22%	70%	30%	100%
2018	13%	-	13%	59%	4%	63%	-	24%	24%	72%	28%	100%
2017	17%	-	17%	62%	3%	65%	-	18%	18%	79%	21%	100%

I. SOURCES OF RAW MATERIALS AND SUPPLIES

The main supplies that the Company requires to operate its business include diesel fuel, tires and spare parts for its mining equipment. The Company buys diesel and aviation fuel and lubricants from Petron Corporation (Petron) and/or Phoenix Petroleum Philippines, Inc. (Phoenix) and heavy mining equipment, such as trucks and excavators, from four (4) manufacturers, namely, Volvo, Isuzu, Caterpillar and Komatsu, through their Philippine distributors. In addition, the Company leases LCTs for use at its mine sites during the shipping season. The Company believes that there are a number of alternative suppliers for all of its requirements.

The Company's existing supply contract with Petron and/or Phoenix provides that they will supply the entire actual requirement of the operating companies of the group for diesel and lubricants of highest quality and based on the typical properties agreed in the contract.

NAC's subsidiary, Jobin, harnesses the sun for its solar energy power generation. For its operations and maintenance, Jobin buys spare parts from local and imported manufacturers and buys fuel from a gas station inside Subic Bay Freeport Zone for its vehicles and standby genset.

J. GOVERNMENT REGULATIONS AND APPROVALS

In the Group's mining operations, it is guided by clear and stringent parameters set forth by the country's national and local laws accordingly implemented by national, regional and local agencies, namely: the Department of Environment and Natural Resources (DENR), the Mines and Geosciences Bureau (MGB), the Environment Management Bureau (EMB), the Protected Areas and Wildlife Bureau, and the LGUs.

The more significant regulations affecting our operations include the following:

<u>Republic Act (RA) No. 7942 (Philippine Mining Act of 1995)</u>

- Section 57 - requires the mining contractor to assist in the development of its mining community, promote the general welfare of the community's inhabitants, and the development of science and mining technology; Section 136 of the Implementing Rules and Regulations of RA No. 7942 requires mining contractors to prepare and implement a five (5)-year Social Development and Management Program (SDMP) in consultation and in partnership with the mining contractor's host and neighboring communities
- Section 63 - requires strict compliance with all mines safety rules and regulations that may be promulgated by the DENR Secretary concerning the safe and sanitary upkeep of mining operations and achievement of waste-free and efficient mine development
- Section 69 - requires an annual Environmental Protection and Enhancement Plan (EPEP) for the rehabilitation, regeneration, revegetation, and reforestation of mineralized areas, slope stabilization of mined-out areas, aquaculture, watershed development and water conservation, and socioeconomic development

- Section 71 - requires mine rehabilitation for mined-out areas to the condition of environmental safety, and the creation of a Mine Rehabilitation Fund

Consolidated DENR Administrative Order (CDAO) 2010-21 (CDAO for Implementing Rules and Regulation of RA No. 7942)

- Section 171 - requires an Annual EPEP (based on the approved EPEP)
- Section 173 - requires the organization of a Mine Environmental Protection and Enhancement Officer to be incorporated into the organization structure
- Section 185 - deputizes the Multipartite Monitoring Team to serve as monitoring arm, with the team composed of representatives from DENR Regional Office, Department Regional Office, EMB Regional Office, Contractor/Permit Holder, affected community/ies, affected Indigenous Cultural Community/ies and environmental non-governmental organization (NGO)
- Section 187 - requires a Final Mine Rehabilitation/Decommissioning Plan, including financial requirements up to post-decommissioning

Executive Order (EO) No. 26 (National Greening Program) - mandatory reforestation activities outside of mining contract/permit/lease/tenement areas

RA 9003 (Ecological Solid Waste Management Program) - requires waste segregation, promotes recycling and sets guidelines for Materials Recovery Facility

RA 6969 and DAO 2013-22 - guidelines on proper handling and monitoring of toxic and hazardous waste material

RA 8749 (Philippine Clean Air Act of 1999) - framework for air quality management program

RA 9275 (Philippine Clean Water Act of 2004) - framework for comprehensive water quality management

RA 9371 (Indigenous Peoples' Rights Act) - recognition, protection and promotion of the rights of the Indigenous Cultural Communities/Indigenous Peoples

RA 9729 (Climate Change Act of 2009) - comprehensive framework for systematically integrating the concept of climate change, in synergy with disaster risk reduction, in various phases of policy formulation, development plans, poverty reduction strategies and other development tools and techniques

DAO 2004-52 - Tree cutting permit

DAO 2015-07 - mandating Mining Contractors to Secure ISO 14001 Certification
Pursuant to the Administrative Order, NAC's operating subsidiaries, TMC, RTN, CMC, and HMC, underwent a yearlong process to identify all environmental impacts, address such impacts, document an Environmental Management Systems (EMS) that complies with the standards, and cascade down the EMS to all employees for their full appreciation and compliance. Following two (2) audits conducted by the certifying body, TÜV Rheinland, the operating subsidiaries all received their ISO 14001 Certification in 2016.

DAO 2016-1 - prescribing for an audit of metallic mining companies by the DENR
All of the Group's mining companies also abide by commitments stipulated in their Environmental Compliance Certificate (ECC) and specified in their approved Contractor's Plan of Mining Operation.

DAO 2018-20 - prescribes Guidelines for Additional Environmental Measures for Operating Surface Metallic Mines, provides for the limits of maximum disturbed areas for nickel mines depending on the scale of their mining operations. For mines which produce nine (9) million WMT per year, the maximum disturbed area shall be 100 hectares. For nickel mining projects with a processing plant or with long-term supply agreements for a processing plant, the maximum disturbed area for extraction shall be 162 hectares or two (2) meridional blocks. This DAO requires that temporary revegetation be immediately implemented on the disturbed areas. The Group is compliant with the maximum limits prescribed in this DAO.

Electric Power Industry Reform Act (EPIRA)

This EPIRA of 2001 brought about the "Unbundling of the System". Whereas previously, all aspects of the power industry were owned by the Philippine government under the National Power Corporation (NPC), the EPIRA brought about privatization of the generation, transmission, and distribution of electricity. NPC's mandate was significantly reduced to providing electricity to more difficult to reach and off-grid areas of the country.

- The EPIRA sought to bring about:
  - Competitive Generation
  - Regulated Transmission and Distribution
  - Competitive Retail Electricity Providers
- The EPIRA established the WESM, unbundled the electricity tariff for greater transparency, and seeks to provide open access to transmission and distribution lines for all industry players.
- The EPIRA created the ERC as a purely independent regulatory body performing the combined quasi-judicial, quasi-legislative and administrative functions in the power industry. ERC is tasked to promote competition, encourage market development, ensure customer choice and penalize abuse of market power in the power industry. In addition to its traditional rate and service regulation functions, ERC focuses on consumer education and protection, and promotion of the competitive operations in the power market.

Renewable Energy (RE) Law

The RE Act of 2008 encompass policies that relate to renewable energy and legislative instruments that further encourage its growth - i.e. economic incentives.

- Section 13 states the government share in all renewable energy revenues: 1.5% for geothermal energy and 1% for the rest.
- Section 15 outlines the general incentives: Income Tax Holiday (7 years), Duty-free importation, Special Realty Tax Rates (1.5%), Corporate Tax Rate (10%), Accelerated Depreciation, Zero Percent Value Added Tax (VAT) Rate, Additional Cash Incentive for Off-grid Generation Facilities, etc.

Pending Approval

TMC's application for Mineral Production Sharing Agreements (MPSA) denominated as APSA No. 73-XIII for its La Salle Exploration project is pending reconsideration.

HMC's application for renewal of MPSA No. 012-92-VIII for its Manicani Nickel Project in Guiuan, Eastern Samar is pending approval before the DENR.

CEXCI's application for renewal of EP No. 004-2006-CAR for the Manmanok property is pending approval by the DENR-MGB. Newminco's application for renewal of EP No. 001-2015-III for its exploration activities in Zambales was approved by the MGB on March 3, 2020.

In July 2019, CExCI's filed an application to convert APSA No. 000021-II that it acquired by assignment from Marian and Olympus in April 2019. In January 2020, the MGB Region 2 office approved CExCI's application to convert APSA No. 000021-II into an application for exploration permit. The said application for exploration permit is pending with the MGB.

On February 10, 2020, Jobin submitted a Letter of Intent to DOE to apply for a new Solar Energy Operating Contract with a capacity of 100MW to be located within the Mt. Sta. Rita Subic Bay Freeport Zone. This request is being evaluated by DOE.

K. COMPETITION

NAC competes with both domestic Philippine nickel ore suppliers and foreign nickel ore suppliers (primarily from Indonesia) in world nickel ore markets. Domestic competitors are CTP Construction & Mining, and Platinum Group Metals Corp (PGMC), while foreign competitors mainly include PT Aneka Tambang.

On the power business, the implementation of the EPIRA has paved the way for a more independent and market-driven Philippine power industry. This has allowed for competition, not limited by location, and driven by market forces. The sale of power and the dispatch of power plants depend on the ability to offer competitively priced power supply to the market. However, as a registered renewable energy generating unit with intermittent renewable energy resources, Jobin's solar power plant is considered "must dispatch" based on available energy and enjoys the benefit of priority dispatch to the grid and the WESM. The Company's power projects which are still either in the exploration or development stage will face competition in the development of new power generation facilities as well as in the financing for these activities.

L. NICKEL ORE TRADE AND OUTLOOK

Nickel Ore Trade

Nickel ore in the country is mainly exported to China and Japan. Primary nickel consumption in China was estimated at 1.28 million tonnes in 2019, which accounted for 54% of global nickel consumption, while 7% of the global nickel consumption can be attributed to Japan.

Chinese nickel production in 2019 was estimated at 0.80 million tonnes, of which 0.60 million tonnes came from NPI. Based on the Company's research, nickel ore exported to China from Philippines is estimated at 40 million WMT in 2019 as compared to 39 million WMT in 2018.

Due to increase shipment from Indonesia, there was an oversupply in the market for nickel ore. The Company estimated that 31 million WMT was exported from Indonesia to China in 2019 as compared to 18 million WMT in 2018.

Indonesian mines shipped out 1.65% nickel grade, which is much higher compared to the Philippines. The increase shipment from Indonesia resulted from: 1) higher volume of NPI production; and 2) sluggish demand for the Philippine's middle grade nickel ore.

However, the Indonesian government accelerated the ore export ban effective January 1, 2020, which may probably result to higher demand as well as higher price for nickel ore from the Philippines.

Outlook for Nickel

Global nickel supply in 2019 was estimated at 2.33 million tonnes, while consumption was at 2.36 million tonnes, resulting to 0.03 million tonnes of shortage. The shortage continued since 2016; resulting to a decrease in London Metal Exchange (LME) nickel inventory to 0.15 million tonnes at the end of 2019 from 0.43 million tonnes in the beginning of 2016.

The global nickel consumption increased by 2.6% on a year-on-year basis driven by the strong growth in the global stainless steel industry.

Around 60% of nickel supply is used for stainless steel production. Therefore, the growth in stainless steel production is a key factor in the outlook for nickel. Global stainless steel production in 2019 was estimated at 52 million tonnes, increased by 1.5% from the previous year, of which, Chinese stainless steel production accounted for 29.3 million tonnes, which is 10% increase on a year-on-year basis.

Nickel demand for electric vehicles is expected to increase from the current level of about 100,000 to about 500,000 tonnes by 2025. This additional demand for nickel market also leads to higher expectations for nickel prices over the foreseeable future.

M. EXPLORATION AND DEVELOPMENT

Nickel Resources

NAC covers a wide area of exploration properties and an exploration program encompassing:

1. Brownfield exploration - consisting of work at its existing operations to extend resources and to upgrade resources to reserves; and
2. Greenfield exploration - which involves exploring and delineating nickel lateritic deposits in its existing properties.

The Company owns more than one hundred (100) drilling units that have been designed specifically for drilling near surface lateritic deposits in a quick and economical manner. It also has a pool of experienced geologists and laboratories at each mine site to assess samples as required.

Below is a summary of the Group's exploration and development properties:

Bulanjao: • Total area of 3,604.5 hectares • Conducted step-out drilling throughout the length of the Central Bulanjao deposit	Location: **Palawan Island** Ownership: **RTN**
Manicani: • MPSA covers 1,165 hectares and expires in 2017. Approval for the renewal of the MPSA is pending before the DENR.	Location: **Island of Manicani** Ownership: **HMC**
Kepha Mining Exploration Corp. (Kepha): • Operating Agreement covers 6,980.75 hectares and expires in 2032 • Rights to the property are governed by an Operating Agreement entered into in February 2007 with Kepha • On September 10, 2018, the MGB approved the renewal of the two (2) year EP for the Kepha Property • Follow-up exploration work and drilling was conducted in early 2013	Location: **Surigao del Norte** Operating Rights: **TMC**
La Salle Mining Exploration Company (La Salle): • Operating Agreement covers 6,824 hectares and expires in 2034. However, the MPSA area applied for has been reduced to 2,234.958 hectares • Rights to the property are governed by an Operating Agreement entered into with La Salle in December 2006 • Found a nickel lateritic deposit on the southwestern portion of the property and intend to conduct further exploration work on this deposit	Location: **Surigao del Norte** Operating Rights: **TMC**
Dinapigue: • Covered by MPSA No. 258-2007-II	Location: **Dinapigue, Isabela** Ownership: **DMC**

Description of Exploration and Development Projects

Bulanjao - RTN recently acquired a separate ECC and amended ECC and amended MPSA to include AMA-IVB-144A, otherwise known as the Bulanjao claim, for a total accumulated area of 4,538.44 hectares. RTN's new MPSA is now denominated MPSA-114-98-IV-Amended I. As of December 2019, partial drilling has resulted in measured and indicated mineral resources of 36 million WMT of limonite ore and 20 million WMT of saprolite ore with average nickel grades of 1.30% and 1.54%, respectively. Development in the new area is in progress, and mining will commence by first quarter of 2021.

Gotok – RTN is also a holder of a Limestone MPSA; limestone is sold to CBNC and UMPI to be utilized as Environmental measure for the adjacent CBNC's Hydrometallurigal Processing Plant. The Gotok MPSA has an aggregate area of 84.5364 hectares, however, the ECC only holds a total area of 13 hectares, current resources are not anymore sufficient to meet the demands of its clients for the next three (3) years. Hence, application of ECC to encompass the whole MPSA has already started, pertinent requirements are being prepared including the Final Exploration report and SEP Clearance.

Manicani - The Manicani property is held by HMC. It has a total area of 1,165 hectares and is situated in Guiuan, Eastern Samar. HMC's rights to the property are governed by a MPSA that was entered into by HMC in 1992 and which was subsequently assigned to SNMRC. The application for the Deed of Assignment from HMC to SNMRC was endorsed to the MGB Central Office for further evaluation and final approval. However, on June 1, 2014, a mutual rescission of the said Deed of Assignment was executed by and between HMC and SNMRC and a copy of the said rescission was received by the MGB on July 14, 2014.

HMC conducted mining at the Manicani site between 1992 and 1994 and extracted and sold a total of 63,176 WMT of saprolite ore with an average grade of 2.45% nickel from the site. Mining at the site was suspended in December 1994 because low prevailing nickel prices made mining the site uneconomical. HMC made shipments from stockpiles in 2001 and 2004. In 2004, a regional Panel of Arbitrators rendered a decision recommending the cancellation of the MPSA on the grounds that HMC had violated certain applicable environmental regulations. HMC disputed such allegations and its MPSA was upheld by the Mines Adjudication Board of the DENR in September 2009.

A Letter of Authority to Dispose Nickel Stockpile was issued by MGB on July 1, 2014. From May to August of 2016, five (5) shipments were realized for the disposal of said stockpiles, after which, shipments were suspended by MGB. This left behind almost 900,000 WMT of stockpiles which were already approved for disposal.

To date, there is work to be done before mining operations can be resumed. Currently, HMC has applied for the renewal of the MPSA on May 26, 2016, more than a year prior to its expiration on October 28, 2017. In support of its application, it has received the necessary endorsements from the host communities in the form of resolutions issued by the four (4) barangays comprising Manicani Island, the Municipality of Guiuan, and the Province of Eastern Samar. These endorsements, along with various presentations to be made to the MGB of Region VIII and to the community, forms part of HMC's compliance with the government regulations pertinent to the MPSA renewal.

Once the MPSA renewal is granted, HMC shall begin confirmatory drilling activities and will commence mining once the suspension order is lifted.

Kepha - The property has a total area of 6,980.75 hectares and is situated in the province of Surigao del Norte, immediately southwest of our Taganito mine's northern boundary. TMC's rights to the property are governed by an Operating Agreement that it entered into in February 2007 with Kepha. Kepha entered into a MPSA in June 2009, giving it the right to explore, develop and mine the property for an initial period of twenty-five (25) years.

Under the terms of the Operating Agreement between Kepha and TMC, TMC has the right to explore, develop and operate the property during the period of the MPSA in return for the payment to Kepha of a royalty of 5% of gross revenues from all metallic minerals sold from the property.

Exploration activities at the Kepha exploration project are still under negotiations with the Mamanwa indigenous people group. The claim owner of the Kepha mining claim is also helping in the negotiations with the Mamanwa indigenous people group. Exploration activities in the said area can only resume after the favorable outcome of the said negotiations.

Despite the problem with the indigenous people's community of barangay Camam-onan, TMC continued to bring development projects to the barangay, including the renovation of the barangay Camam-onan gymnasium to a suitable evacuation center. This move by TMC was warmly welcomed by the LGU and constituents of Camam-onan.

On February 13, 2017, the DENR issued a show cause order directing Kepha to explain why its MPSA should not be cancelled for being allegedly within a watershed, which is protected under the Philippine Mining Act of 1995 and other existing applicable laws, rules and regulations. On February 24, 2017, Kepha replied to the letter stating that based on the MGB Region XIII's downloadable tenement map, the MPSA area is outside of any existing legally proclaimed watershed.

On September 10, 2018, the MGB approved the extension of Kepha's EP for another two (2) years, corresponding to the fifth and sixth years of its MPSA.

La Salle - The La Salle property, situated in the province of Surigao Del Norte, is held by TMC. The property previously had a total area of 6,824 hectares but the application was previously reduced to 2,234 hectares and further reduced to 972 hectares. It shares a common boundary with the Kepha property on the southwest side of the property. TMC's rights to the property are governed by an Operating Agreement that we entered into with La Salle in December 2006. La Salle's application for a MPSA is pending and TMC is responsible for completing the requirements for approval of the MPSA.

Under the terms of the Operating Agreement between La Salle and TMC, TMC will have the right to explore, develop and operate the property once the MPSA is approved, in return for the payment to La Salle of a royalty of 5% on gross revenues from all metallic minerals sold from the property.

TMC has identified a nickel lateritic deposit on the southwestern portion of the property near the boundary with the Kepha property and intends to conduct further exploration work on this deposit.

Dinapigue - In 2015, the Parent Company acquired DMC which holds the mineral property within the area subject of MPSA No. 258-2007-II on August 4, 2015. The property is located in the northeastern portion of Luzon, at the eastern foothills of the Sierra Madre mountains near the coast in Brgy. Dimaluade, municipality of Dinapigue, province of Isabela. The project is known as the Isabela Nickel Project which covers an area of 2,392 hectares. It is approximately 425 kilometers from Manila and accessible through approximately 10 hours of land travel.

While the construction of a permanent causeway was deferred pending the necessary permits and additional engineering and design considerations, other development works within the tenement was undertaken. These include repair & maintenance of access roads, construction of offices and staff accommodation, topographic surveys of priority areas for development, and establishment of environmental control measures and nursery facilities.

Gold and Copper Resources

Cordillera Exploration Company, Inc.

The Parent Company entered into an agreement to purchase Cordillera Exploration Company Incorporated (CExCI) from Anglo American, a subsidiary of Anglo American Plc, which pushed through on November 15, 2010. In May 2011, the Parent Company entered into a Participation and Shareholders' Agreement with SMM. From 25% equity interest in 2011, the additional investment by SMM of US$2.8 million in 2015 brought its total equity in CExCI to 40%.

CExCI has an Exploration Permit (EP) over the Manmanok Property in Apayao Province, an Application for EP (EXPA) over the Kutop Property in the province of Abra, and an application for Financial or Technical Assistance Agreement (AFTA) over the Mankayan Property, within the adjoining provinces of Benguet, Ilocos Sur and Mountain Province. A portion of the AFTA, covering the grounds in Mankayan, Benguet and Cervantes, Ilocos Sur, were converted to EXPA.

In December 2015, CExCI acquired the 100% equity interest in Newminco Pacific Mining Corporation, which holds an EP for copper, gold, and related base and precious metals over an area located in Cabangan, San Felipe, and San Marcelino in the province of Zambales. The decision to acquire Newminco was made following the discovery of outcropping gold veins, the sampling of which in part returned good assays for gold.

On April 15, 2019, a Deed of Assignment with Royalty Agreement of Application for Production Sharing Agreement (APSA)-000021-II was executed by and between Marian Mineral Exploration Co., Inc and Olympus Mineral Exploration Co., Inc. and CExCI.

The description of CExCI's various properties is described below.

Zambales

In 2016, Newminco proceeded to implement its exploration program in the tenement designated as EP-001-2015-III which is located in the Municipalities of Cabangan, San Felipe and San Marcelino in the Province of Zambales. Exploration activities being conducted in the area include geologic mapping, sampling and trenching. Roughly twenty-five (25) kilometers of old farm to market and logging roads were rehabilitated and maintained to gain access to the property. Six hundred and sixty meters (660m) of exploratory trenches were dug, logged, sampled and rehabilitated. Diamond core drilling was conducted with a total meterage of 3,799.5 meters. A total of 401 samples were sent to the laboratory for multi-element geochemical analysis.

Results of the 2016 exploration campaign verified gold mineralization in a portion of the area drilled. However, the work so far conducted precludes Newminco from defining any commercial viability to the project. Rehabilitation works on disturbed areas were completed in early 2017.

In 2017, a tenement wide ridge and spur soil sampling program was implemented in order to define targets for more detailed work. However, due to the expiration of the EP in July 2017, the sampling was not completed. This program will resume in 2020 since the 1st renewal of the EP was approved by the Mines and Geosciences Bureau (MGB) on March 3, 2020.

Isabela and Nueva Vizcaya

The Marian Property was designated as APSA-000021-II and covers a total area of 6,325 hectares mainly located in the Province of Isabela with some portions in Nueva Vizcaya. It is owned by Marian Mineral Exploration Co. Inc and Olympus Mineral Exploration Co. Inc. which entered into a Royalty Agreement with Vulcan Industrial and Mining Corporation on October 1969. This agreement was eventually terminated on November 2018.

On July 24, 2019, CExCI filed an application for the conversion of APSA-000021-II into an Exploration Permit at MGB Region 2.

On January 29, 2020, an Order was issued by MGB Region 2 approving the Deed of Assignment with Royalty Agreement and the conversion of the APSA-000021-II to an Exploration Permit application denominated as EXPA-000166-II in favor of CExCI.

Mankayan and Cervantes

In July 2013, a board decision was made to partially convert the AFTA to an EXPA. Since the area to be converted to EP straddles two regions and involves lands belonging to separate indigenous cultural communities, two applications for EP were filed, namely: EXPA 116-Mankayan, covering an area of approximately 5,157 hectares; and EXPA 116-Cervantes, covering an area of approximately 6,012 hectares. The split has been necessary in order to facilitate and simplify the required "Free and Prior Informed Consent" (FPIC) process for each region covered. The process of the application for conversion took from November 2013 up to December 2015.

The FPIC over the Mankayan area was immediately started in December 2015, and had progressed to "Field-based Investigation" stage up to May 2016 when the process was suspended to give way to the general elections. The FPIC process over Mankayan remained suspended throughout the rest of 2016 and the whole year of 2017. This was done in order for CExCI to be able to concentrate in advancing the FPIC process over Cervantes.

The 3rd General Assembly of the FPIC process in Cervantes is the final assembly to officially proclaim the acceptance of the exploration work of CExCI by the Indigenous Cultural Communities. This was conducted on March 13, 2017 and the result was six (6) out of the nine (9) barangays voted for the approval of the exploration of CExCI within their area. Following this, some protests and petitions to discredit the results of the general assembly were filed by some anti-mining group and locals.

A validation exercise to investigate the protests was called by the National Commission on Indigenous Peoples (NCIP) Region 1 Director. The validation exercise was completed by end November 2017, with the results and consequent report being very favorable to CExCI. What remains to be done is for NCIP Regional Office to execute an order for the continuance of the FPIC process. When the process is resumed, CExCI will proceed with the discussion and negotiations for the Memorandum of Agreement (MOA) with the communities, plan out the Community Development Programs, hence signing of the MOA, and eventually issuance of the Certification Precondition by the NCIP and then of the EP by the MGB.

Following the conversion, AFTA-008, now consists of approximately 43,320 hectares and covers portions of the provinces of Benguet and Mt. Province. The future plan for this remaining portion is to further convert other parts into EP, hence eventually dropping the remaining AFTA altogether.

All documents pertinent to the retained AFTA-008 have been submitted to the office of the Regional Director MGB-CAR as of July 11, 2016. The application (AFTA-008) is now pending with the said office.

Manmanok

The Manmanok property is located within the Municipality of Conner, Apayao Province. The property is covered by EP-004-2006-CAR, which was first granted in October 2006 and subsequently renewed twice with the corresponding reduction in area coverage. The final area covered by the permit is approximately 4,996 hectares.

Following geophysical and geochemical work in an area that was deemed prospective for gold mineralization, drilling activities were conducted from June 2012 to March 2013, with poor results. Although an application for the third renewal of the EP was submitted to MGB-CAR, the poor outcome and the difficulties experienced in operating in such a remote area may lead the Company to terminate work and relinquish the EP eventually.

Kutop

The Kutop property is located within the municipalities of Malibcong and Daguioman in the Province of Abra, and the municipality of Balbalan in the Province of Kalinga. The property, with a total area of 13,268 hectares, is covered by an application for EP designated as EXPA-014-CAR.

As the area is ancestral land, CExCI is required to obtain a FPIC from the tribal group prior to the grant of the EP. Considerable delays have been experienced in moving this process forward. In the meantime, a deadline imposed by the MGB to complete this process has not been met. With the prevailing condition in the area, the Company may decide not to pursue the EXPA.

N. ENVIRONMENT AND REHABILITATION

Environmental Responsibility

NAC adheres to the principles and practices of sustainable development. The Company is committed to complying and following environmental regulations by implementing best practices in managing environmental impacts of its operations. Mining is a temporary land use and once mining operations in its sites have ended, the Company plans to restore these properties to at least as close as possible to their pre-mining condition or to develop alternative productive land uses for the benefit of the surrounding communities. It is also committed to investing in programs and technologies to mitigate the anticipated impacts of mining activities.

To manage environmental impacts, NAC's subsidiaries have an EPEP. This refers to the comprehensive and strategic environmental management plan for the life of mining projects to achieve the environmental management objectives, criteria and commitments including protection and rehabilitation of the affected environment.

It is the operational link between the environmental protection and enhancement commitments under CDAO 2010-21, consolidated implementing rules and regulations of RA No. 7942, as well as those stipulated in the ECC under Presidential Decree 1586 and the Contractor's plan of mining operation.

Activities undertaken through the Annual EPEP include, among others:

- Rehabilitation of mine disturbed areas
- Reforestation
- Construction and/or maintenance of environmental facilities
- Solid waste management
- Hazardous waste management
- Air quality monitoring and water quality monitoring
- Preservation of downstream water quality

NAC also complies with the ECC conditions and the performance of commitments through the Annual EPEP. This program is monitored and evaluated by the Multipartite Monitoring Team - a multi-sector group headed by a representative from the Regional MGB and representatives of LGUs, other government agencies, NGOs, people's organizations, the church sector and the Group. In 2019, the Group spent approximately ₱508.8 million on its EPEP.

Rehabilitation

In line with its commitment to maintain a sustainable environment in its areas of operation and to abide by the Philippine Mining Act of 1995, NAC regularly conducts onsite environmental assessments to ensure that all its subsidiaries are strictly implementing progressive rehabilitation within standards set by regulatory agencies.

The process begins with re-contouring, backfilling and leveling the land. After this, the area is covered with top soil and other soil amelioration strategies to provide fertile ground for planting.

The Company follows the "Sequential Planting Method", wherein fast growing species are first planted, then provided with a vegetative cover within twelve (12) to eighteen (18) months to enable the planting of other species. Another successful method used is by utilizing large planting materials which resulted to more than 90% survival and high growth rate.

Creating a biodiversity area with varied species of vegetation including native fruit bearings trees will eventually be a source of food for a variety of wildlife species that will aid in rehabilitating mine affected areas by way of succession and regeneration. The rehabilitation effort is managed by the Group's expert foresters with the help from indigenous peoples from the locality, and the Company has successfully demonstrated that a totally mined out area can be significantly re-vegetated in just twelve (12) to eighteen (18) months.

The end result is a sustainably managed forest far better than the stunted vegetation before, because of the mineralized nature of the soil.

As a means of restoring the disturbed areas from mining operations, NAC requires each mine site to create a decommissioning/closure plan. The closure plan includes the process in which mined-out areas will be rehabilitated and monitored, until the rehabilitation criteria set by MGB are successfully satisfied. The program for final rehabilitation and decommissioning includes social package which include livelihood components for the host communities and the affected employees of our companies. The four (4) operating subsidiaries have already developed their respective plans for review and approval of the MGB.

Mine Rehabilitation, a requirement under the Philippine Mining Act of 1995, is part of sustainable development. It forms part of the best practices of the Company's subsidiaries such as RTN. Following the "Sequential Planting Method" used by the Group, fast growing species or Pioneer Species such as Batino, Acacia mangium, Acacia auriculiformis and others - all grown and nurtured in the Company's nurseries--are planted first. These species provide vegetative cover within three (3) years to enable the planting of "Climax Species" like Apitong, Ipil, Narra, Almaciga, Agoho, Kamagong and others which need tree shade to grow. They form the core of the new forest stands. Native fruit-bearing trees are also planted to provide a source of food for wild animals that will eventually populate the forest. To ensure the survival of all these trees, the Company's subsidiaries manage the rehabilitation program through their forestry teams. Composed mostly of indigenous people from the surrounding areas, each forestry team conducts a maintenance program that includes watering the trees during summer, ringweeding cultivation around seedlings, application of compost and other related activities. The work of the forestry teams has resulted in a survival rate of 85%-95% for the trees.

As of December 31, 2019, the Group recognized a provision for mine rehabilitation and decommissioning of ₱493.7 million. Funds for mine rehabilitation and other environmental guarantee funds are established and deposited in trust funds, as required by the Philippine Mining Act. The Company has ₱511.9 million maintained in such trust funds as of December 31, 2019. This amount complies with the minimum requirement under the law.

In 2019 and 2018, the Group planted trees of about 568,075 and 632,837, respectively.

O. SOCIAL RESPONSIBILITY

Mining

NAC endeavors to be a valuable partner for economic and social progress. As a corporate citizen, it recognizes the great privilege of sharing the opportunities and the responsibilities afforded by doing business in the country. The principles of sustainable development clearly identify for the Company its obligation to make every effort and ensure that the benefits of development reach every stakeholder.

Social development programs are created and implemented in all the mines. The focus areas of these programs are designed to address needs of communities around the mine sites. These programs are carried out through the SDMPs and Corporate Social Responsibility (CSR) activities of the Group. The main difference between the two programs is that the SDMP is required by the government, while CSR is voluntary on the part of the Group.

NAC engages with residents, LGUs, government agencies, local NGOs, international agencies and other interested groups to understand concerns, identify needs and design projects that will facilitate long-term and beneficial resource development. Each of its operating mines manages their social expenditures through its respective SDMPs. These are five (5) year programs that contain a list of priority projects identified and approved for implementation, in consultation with the host communities. Each mine site has a community relations team that is in charge of identifying and implementing SDMPs, and maintaining strong relationships with communities. Annually, the Group sets aside a budget for SDMP projects that focus on health, education, livelihood, public utilities and socio-cultural preservation. The implementation of the programs are monitored, audited and evaluated by the MGB.

The Group also recognizes the rights of the indigenous peoples and Indigenous Cultural Communities and in compliance with the Indigenous Peoples Rights Act, its subsidiaries entered into agreements for royalty payments and other assistance for their socio-economic well-being.

NAC respects and values each of our employees and observes the fundamental tenets of human rights, occupational safety and non-discrimination in the work place. The Group implements a Safety and Health Program in all of its operating mines and provides the equipment, training and resources necessary to enable its employees to perform their work safely and without risk to their health. The Group has committees and labor management groups that monitor its health and safety programs. The Company believes that security goes hand in hand with safety in the workplace and has adopted security policies and systems founded on the protection of basic human rights and respect for people.

Beyond the mandatory SDMP programs, the Group carries out its own CSR programs. NAC's CSR Program is anchored on two central elements:

1. Community Partnership and Relationship Building
    a) Establishing and maintaining positive relationships with communities by having them as partners for community development and nation building
    b) Partnership building with communities (both social and environmental) - community as essential partners and not as mere beneficiaries
    c) Community serving as the primary protector of the Company through strong partnership and relationship

2. Leadership
    a) Top management strongly supports the Group's CSR initiatives
    b) Social Investment - going beyond compliance and considering CSR not as an additional cost but as an investment

Power

EPI and its subsidiaries are strongly committed to uplifting the lives of our host communities through programs and activities that build lasting relationships and long-term opportunities.

Each of its project companies' Community Relations team implements plans and strategies that are distinctive to the host community but ultimately support the overarching theme of sustainability. EPI engages the host communities through continuing dialogues to better understand and appreciate their collective concerns and apprehensions and creates programs based on this. As such, the campaigns are unique and dynamic and include stakeholder engagement, community services and environmental activities.

In 2019, EPI continued its work in helping build sustainable communities on its respective subsidiaries covered areas by implementing programs that promote stakeholder engagement, community empowerment and environmental stewardship.

EPI through MGPC, conducted skills training in partnership with Arnold Janssen Catholic Mission Foundation Inc. and Technical Education and Skills Development Authority for its host communities. The technical vocational skills program produced fifty (50) graduates who received NC II Certification on Scaffold Erection and are now employed in one of the leading construction companies in the Philippines. MGPC also continued its support to 3M Women's Organization which has helped empower the women of the host communities to start their own business to augment their respective household incomes.

Jobin initiated the rehabilitation of the Tipo-Roosevelt Road. The access road was completed and turned over in January 2019 to the Barangay Local Government of Tipo. Jobin also started the construction of the Pamulaklakin Road which includes the concreting of a total length of 3,220 meters from Binictican Drive – Pamulaklakin Junction to Jobin's Alpha gate. The road improvement provides better access and convenience to locals and the students of Tipo Elementary School.

Under the MOA with Tribong Ayta Ambala ng Pastolan, Indigenous Cultural Community / Indigenous Peoples, a NCIP recognized organization of the Aeta covered by a Certificate of Ancestral Domain Title, Jobin continued its support to the Aeta community by delivering all its commitments, including the annual financial assistance to the community. Jobin also conducted a medical mission on December 14, 2019 for residents of barangays Tipo and Roosevelt.

Beyond compliance with statutory provisions, EPI and its subsidiaries continued upholding exemplary safety practices and security management in the power industry with the use of leading global technologies and strict implementation and compliance to procedures in renewable energy development. It emphasized the safety and well-being of its employees, stakeholders and its host communities. It strives to maintain zero lost time accidents in all of its active renewable energy development locations. This commitment is manifested with the DOE and the Safety and Health Association of the Philippines Energy Sector, Inc.'s recognition of our project companies for Corporate Safety and Health Excellence Awards -

BGI as a Hall of Famer Corporate Safety and Health Excellence for achieving the Corporate Safety and Health Award for three (3) consecutive years since 2016; Jobin, for two (2) consecutive years since 2017; and MGPC for 2019 excellence award.

NAC believes in partnerships that provide opportunities for the Filipino. It creates value by keeping families together through jobs generation or entrepreneurial initiatives that it spearheads, always mindful of our commitment to improving and uplifting the lives of the people in the host communities.

P. EMPLOYEES

As at December 31, 2019, we had a total of 2,045 regular employees. Of these, 1,972 are employed in mining operations and projects and 73 are employed in power plant operations.

The tables below show the distribution of our workforce (full time regular employees only):

Head Office

	NAC	CMC	HMC	TMC	RTN	CEXCI	DMC	EPI	JSI	BGI	MGPC	Total
Senior Management	22	1	1	1	1	-	-	3	-	-	-	**29**
Managers	15	1	1	3	2	-	-	1	-	-	-	**23**
Supervisors	21	5	2	4	6	2	2	1	2	-	-	**45**
Rank & File	25	3	6	7	10	4	-	3	2	-	-	**60**
Total	**83**	**10**	**10**	**15**	**19**	**6**	**2**	**8**	**4**	**-**	**-**	**157**

Minesite/Project Field Office

	NAC	CMC	HMC	TMC	RTN	CEXCI	DMC	EPI	JSI	BGI	MGPC	Total
Senior Management	-	3	3	3	6	-	-	-	-	-	-	**15**
Managers	3	11	15	40	33	-	4	-	2	-	1	**109**
Supervisors	5	82	99	204	142	-	23	-	4	1	-	**560**
Rank & File	22	130	114	400	503	-	1	-	22	5	7	**1,204**
Total	**30**	**226**	**231**	**647**	**684**	**-**	**28**	**-**	**28**	**6**	**8**	**1,888**

Each mine site and project field office also provides work opportunities for the communities. The tables below show a breakdown of the workforce (full time, contractual, probationary and casual) hired from the local communities in each area of operation:

Minesite	Manpower from local community	Indigenous People
Regular	1,187	76
Probationary	11	2
Project-based/Seasonal	646	92
Total	**1,844**	**170**

Plantsite	Manpower from local community	Indigenous People
Regular	27	3
Probationary	3	-
Project-based	11	-
Total	**41**	**3**

NAC complies with all government standards on the wages and labor regulations in the Philippine mining and renewable energy industries. We also ensure that we are aligned with the specific regulations from the respective Department of Labor and Employment (DOLE) Regional Offices. In the case of unions, employment conditions for rank and file employees are provided by Collective Bargaining Agreements (CBA) which are negotiated at the mine level. Generally, these CBAs have terms of five (5) years (with a provision for wage renegotiation after three (3) years).

The CBA of HMC was successfully renegotiated and will expire on December 31, 2022. RTN's rank and file CBA will expire this December 2020 and will undergo negotiations for a new cycle for five (5) years. Meantime, the CBA of the supervisor's union of RTN started last June 2018 and will expire in June 2023. CMC's negotiation on the supplemental CBA on economic provisions was concluded and this will expire on December 31, 2020. TMC's CBA negotiation was also concluded last March 2020 and will expire in December 2025.

The compensation of the Group is among the best in the Philippine mining industry and its relations with employees and unions are very productive. We have received awards for Union and Management partnering programs. The Group continues to forge and sustain productive partnerships with our unions and their federations.

Pension Costs
The Company provides its regular employees with a retirement benefit as part of its employment benefits. The cost of providing benefits under the defined benefit plans is actuarially determined using the projected unit credit method. This method reflects service rendered by employees to the date of valuation and incorporates assumptions concerning the employees' projected salaries. The assumptions include among others, discount rates and future salary increase rates.

Defined benefit costs comprise the following:

- Service cost
- Net interest on the net defined benefit liability or asset
- Re-measurements of net defined benefit liability or asset

These amounts are calculated periodically by independent qualified actuaries.

Q. RISKS RELATED TO OUR BUSINESS AND INDUSTRY

<u>*Mining Industry*</u>

Changes in, or more aggressive enforcement of, laws and regulations could adversely impact the Group's business - Mining operations and exploration activities are subject to extensive laws and regulations. These relate to production, development, exploration, exports, imports, taxes and royalties, labor standards, occupational health, waste disposal, protection and remediation of the environment, mine decommissioning and rehabilitation, mine safety, toxic substances, transportation safety and emergency response and other matters.

Continued moratorium and delay in getting permits - The issuance of EO No. 79 put a moratorium on the issuance of new permits pending legislation rationalizing the existing revenue sharing schemes and mechanism have taken effect. The Group relies on permits, licenses, including MPSA, operating agreements with third-party claim owners and land access agreements to conduct its mining operations. The MPSAs and Operating Agreement with respect to its operating mines expire at different times between 2017 and 2047 and require renewal upon expiration. The Group believes that its subsidiaries and affiliates currently hold or have applied for all necessary licenses, permits, operating agreements and land access agreements to carry on the activities that it is currently conducting under applicable laws and regulations, licenses, permits, operating agreements and land access agreements. The Group may be required to prepare and present to government authorities data pertaining to the impact that any proposed exploration or production of ore may have on the environment, as well as efficient resource utilization and other factors that its operations may influence. The process of obtaining environmental approvals, including the completion of any necessary environmental impact assessments, can be lengthy, subject to public input and expensive. Regulatory authorities can exercise considerable discretion in the terms and the timing of permit issuance or whether a permit may be issued at all. Accordingly, the approvals needed for the Group's mining operations may not be issued or renewed or, if issued or renewed, may not be issued in a timely fashion, or may involve requirements that may be changed or interpreted in a manner which restricts its ability to conduct its mining operations profitably.

Furthermore, new laws or regulations, or changes in the enforcement or interpretation of existing laws or regulations, may require substantial increases in equipment and operating costs in order to obtain approvals required by, or to otherwise comply with the conditions imposed by, such new or revised laws and regulations. The need to obtain such new or revised approvals or to comply with additional conditions may also cause material delays or interruptions of one or more of the Group's current or planned operations or developments or, to the extent such approvals or conditions cannot be obtained or met on an economical basis, the curtailment or termination of such operations or developments.

In addition, the local governments where the Group's mines or exploration properties are located may impose additional restrictions on its operations. For instance, the conversion of a mining lease to a MPSA for its Mt. Bulanjao exploration property has been pending for several years due to restrictions on mining above a certain elevation imposed by the PCSD. Recently, the Municipality of Bataraza where the property is located, reclassified the Bulanjao area as open to mineral development. A final endorsement from the PCSD is necessary before RTN can receive the MPSA on the property.

Mine security - The Group's operations are prone to terrorist attacks and other insurgent atrocities due to the location of mine sites. NAC ensures the safety of its communities and employees by working with the government and tapping all available resources that may help prevent, or at the very least, reduce terror-related incidents.

Each mining operation also employs a safety team under an accredited safety officer to promulgate safety measures and procedures and to ensure that these are followed. Training programs are also being conducted regularly.

On October 3, 2011, around 200 armed men occupied the TMC mine site and destroyed, among others, equipment, building structures, materials and supplies by setting them on fire. Accounting, personnel, laboratory and administrative records were destroyed. Approximately ₱239.5 million worth of damages were sustained. Fortunately, no life or limb was lost. In response to the incident, security was increased, not just in TMC, but in all of the Group's mine sites. This was done in close coordination with the Armed Forces of the Philippines tapping the services of the Special Citizen Armed Forces Geographical Unit Active Auxiliary Companies.

NAC expends significant financial and managerial resources to comply with a complex set of environmental, health and safety laws, regulations, guidelines and laws drawn from a number of different jurisdictions. The Group's facilities operate under various operating and environmental permits, licenses and approvals to satisfy these conditions. Failure to meet these conditions could result in interruption or closure of exploration, development or mining operations or material fines or penalties.

Aside from the above, the Group faces a number of risks and the occurrence of any of these risks could have an adverse impact on our business, results of operations and financial condition.

Volatility of LME nickel prices - NAC's revenue is largely dependent on the world market price of nickel. The sales price of nickel ore is correlated with the world market price of nickel. The nickel price is subject to volatile price movements over time and is affected by numerous factors that are beyond its control. These factors include global supply and demand; expectations for the future rate of inflation; the level of interest rates; the strength of, and confidence in, the U.S. dollar; market speculative activities; and global or regional political and economic events, including changes in the global economy. A growing world nickel market and increased demand for nickel worldwide have attracted new entrants to the nickel industry, spurred the development of new mines and expansion of existing mines in various regions, including Australia, Indonesia and New Caledonia, and resulted in added production capacity throughout the industry worldwide. An increasing trend in nickel prices since early 2003 have encouraged new or existing international nickel producers to expand their production capacity. An increased rate of expansion and an oversupply of nickel in world nickel markets in the future could reduce future nickel prices and the prices that the Group receives under its nickel ore supply agreements. If the sales price of its nickel ore falls below its production costs, the Group will sustain losses and, if those losses continue, it may curtail or suspend some or all of its mining and exploration activities. The Group would also have to assess the economic impact of any sustained lower nickel prices on recoverability and, therefore, the cut-off grade and level of its nickel reserves and resources.

Nickel mining is subject to a number of inherent risks that are beyond our control - The Group's mining operations are influenced by changing conditions that can affect production levels and costs for varying periods and as a result can diminish our revenues and profitability. Inclement or hazardous weather conditions, the inability to obtain equipment necessary to conduct its operations, increases in replacement or repair costs, prices for fuel and other supplies, unexpected geological conditions and prolonged disruption of production at its mines or transportation of its nickel ore to customers could have a significant impact on the productivity of its mines and its operating results.

Other factors affecting the production and sale of the Group's nickel ore that could result in increases in its costs and decreases in its revenues and profitability include:
- equipment failures and unexpected maintenance problems;
- interruption of critical supplies, including spare parts and fuel;
- earthquakes or landslides;
- environmental hazards;
- industrial accidents;
- increased or unexpected rehabilitation costs;
- work stoppages or other labor difficulties; and
- changes in laws or regulations, including permitting requirements, the imposition of additional taxes and fees and changes in the manner of enforcement of existing laws and regulations.

The realization of any of these risks could result in damage to NAC's mining properties, nickel ore production or transportation facilities, personal injury or death, environmental damage to its properties, the properties of others or the land or marine environments, delays in mining ore or in the transportation of ore, monetary losses and potential legal liability.

Changes in Chinese demand may negatively impact world nickel demand and prices - Approximately, 67% of NAC's revenue from sale of nickel ore in 2019 was derived from shipments to China. The Chinese market has become a significant source of global demand for commodities.

China's consumption of primary nickel has increased by more than 30% over the past years, according to CRU Strategies. While this increase represents a significant business opportunity, the Group's exposure to China's economy and economic policies has increased. NAC's exposure to the Chinese market and its short-term supply agreements with Chinese customers have resulted in increased volatility in its business. In addition, increased Chinese demand for commodities has led to high volatility in the freight rates for shipping the Group's nickel ore. High freight rates can discourage customers outside the Philippines from entering into long term supply agreements with the Group due to the unpredictability of future shipping costs and can also affect the price Chinese customers are willing to pay for its nickel ore.

China, in response to its increased demand for commodities, is increasingly seeking self-sufficiency in key commodities, including nickel, through investments in nickel mining operations in other countries. In addition, nickel ore is used in the production of stainless steel and a slowdown in the stainless steel industry in China, or China's economic growth in general, could result in lower Chinese demand for NAC's products and therefore reduce its revenue.

A prolonged decrease in production by the Coral Bay HPAL facility or the Taganito HPAL facility Approximately, 22% of the Company's revenue from sale of nickel ore in 2019 was derived from sale of limonite ore to the Coral Bay HPAL facility and Taganito HPAL facility. CBNC, the owner of the Coral Bay HPAL facility, is only required to pay for limonite ore that is actually delivered to the plant and there are no minimum take-or-pay provisions in the ore supply agreement governing NAC's sales of ore to the facility. The ore supply agreement with Taganito HPAL facility is also subject to similar terms. In the event that the Coral Bay HPAL facility or the Taganito HPAL facility decreases production or experiences an unexpected prolonged shutdown, the Group will reduce the volume of limonite ore that its delivers to the applicable facility or cease such deliveries altogether.

The Group's reserves may not be replaced, and failure to identify, acquire and develop additional reserves could have an adverse impact on its business, results of operations and financial condition - NAC's sources of nickel ore are currently limited to the Rio Tuba, Taganito, Cagdianao and Taganaan mines. The Group's profitability depends substantially on its ability to mine, in a cost-effective manner, nickel ore that possesses the quality characteristics desired by its customers. Because the Group's reserves decline as its mines its nickel ore, its future success and growth depend upon its ability to identify and acquire additional nickel ore resources that are economically recoverable. NAC currently has seven (7) mining exploration properties in the Philippines and if it fails to define additional reserves on any of its existing or future properties, its existing reserves will eventually be depleted. The acquisition of DMC in 2015 will increase the current sources of nickel ore of the Group.

The Group faces competition in selling nickel ore - NAC competes with both domestic Philippine nickel ore suppliers and foreign nickel ore suppliers in world nickel ore markets. It competes with other nickel ore suppliers primarily on the basis of ore quality, price, transportation cost and reliability of supply.

Continued compliance with safety, health and environmental laws and regulations - NAC expends significant financial and managerial resources to comply with a complex set of environmental, health and safety laws, regulations, guidelines and permitting requirements (for the purpose of this paragraph, collectively referred to as "laws") drawn from a number of different jurisdictions. The Group anticipates that it will be required to continue to do so in the future as the recent trend towards stricter environmental laws is likely to continue. The possibility of more stringent laws or more rigorous enforcement or new judicial interpretation of existing laws exists in the areas of worker health and safety, the disposition of waste, the decommissioning and rehabilitation of mining sites and other environmental matters, each of which could have a material adverse effect on the Group's exploration, operations or the cost or the viability of a particular project. NAC's facilities operate under various operating and environmental permits, licenses and approvals that contain conditions that must be met and its right to continue operating its facilities is, in a number of instances, dependent upon compliance with these conditions. Failure to meet certain of these conditions could result in interruption or closure of exploration, development or mining operations or material fines or penalties.

Exposure to exchange rate fluctuations - The Group's nickel ore sales are denominated in U.S. dollars while most of its costs are incurred in Philippine peso. The appreciation of the Philippine peso against the U.S. dollar reduces its revenue in peso terms. Accordingly, fluctuation in exchange rates can have an impact on the Group's financial results. Additionally, in the past NAC has invested in derivative instruments that increased in value as the Philippine peso appreciated relative to the U.S. dollar, and vice versa. While the Group's current policy is not to hedge its exposure to foreign currency exchange risk or invest in this type of derivative instrument, the Group does, and may continue to, invest in U.S. dollar-denominated portfolio investments. Appreciation of the Philippine peso relative to the U.S. dollar could result in a translation loss on our U.S. dollar-denominated assets.

Power Industry

Continued compliance with laws and regulations - Power companies are required to comply with regulations relevant to the power industry as implemented by agencies like DOE, ERC, NGCP, Board of Investments, DOLE, DENR, Department of Agrarian Reform, NCIP, Bureau of Internal Revenue, SEC and LGUs. A risk will arise if the Company is unable to timely and satisfactorily comply with regulatory requirements. To mitigate this risk, the Company's subsidiaries monitor and comply with all such legal and regulatory requirements.

Market risk - Jobin generates solar energy and all its energy production enjoys the benefit of priority dispatch to the grid. Jobin sells to the WESM and, as such, is a market-price-taker. For the proposed geothermal power projects, long-term power sales contracts with distribution utilities are entered into. The Company evaluates the market risks and implements appropriate strategies to mitigate suck risks.

Equipment, Procurement and Construction (EPC) may not completed as planned – The Group's power subsidiary is still increasing its renewable energy capacity. There is always a risk that EPC of the various power plant facilities is not completed as planned, particularly in terms of standards, specifications, costs and timing. To mitigate this risk, the Group engages reputable contractors with the requisite track record to complete the project EPC. A full range of insurance protection as well as performance guarantees are being arranged by the Group. The Group also hires its owner's engineer to have quality control over the EPC workmanship.

Shortage or lack of adequate and qualified personnel - A well-run power plant is vital to ensuring that the renewable energy production potential of the power plant is effectively harnessed, optimized, efficiently and fully delivered. To achieve this, the Group has and will continue to contract the services of seasoned power plant operations and maintenance managers and their respective teams of qualified personnel.

Occurrence of environment and natural catastrophes - Before undertaking any renewable energy project, the Group takes into consideration various factors including (a) project location – whether the potential power production sites are in areas identified by government agencies/authorities as susceptible to natural disasters/extreme weathers; (b) geotechnical studies – prepared by reputable global renewable energy consulting firms for every potential project site who research and recommend the appropriate technologies, types of materials or equipment to use, and the minimum performance specifications and standards to adopt to ensure maximum tolerance say against wind strength in the area (e.g. minimum strength of solar panel braces), and the design of the plants; and (c) expert views – articulated by seasoned practitioners/specialists in solar and geothermal technologies. Such force majeure or acts-of-God occurrences are covered by provisions in all contracts entered into by the Group. The Group is mitigating the risk that naturally occurring perils cause damage to or disrupt renewable energy projects during their developmental and operating phases by obtaining various appropriate insurance coverage/s and instituting systems and procedures to minimize if not avoid the impact of these occurrences.

Item 2. PROPERTIES

A. MINING PROPERTIES AND PERMITS

Below is a summary of the Group's mineral agreements and permits, mineral resources and reserves and processing facilities with respect to its mining operations.

RIO TUBA NICKEL MINING CORPORATION

A. Rio Tuba Mine

MPSA No. 114-98-IV- Amended I covering beneficiated nickel mine - On June 4, 1998, RTN was issued a MPSA by the DENR covering an area of 990 hectares, situated at Barangay Rio Tuba, Bataraza, Palawan, valid for twenty-five (25) years, renewable for another twenty-five (25) years subject to mutually agreed upon terms and conditions. On August 22 and November 4, 2019, RTN's application for a separate ECC and MPSA amendment, respectively, were approved covering additional area of 3,548.44 hectares, for a total accumulated area of 4,538.44. However, under the SEP for Palawan Act (RA No. 7611), operations are currently prohibited within an area of 144 hectares classified as "core zone" which are required to be fully and strictly protected and maintained free of human disruption. Included in the "core zone" are all types of natural forest, areas above 1,000 meters elevation, peaks of mountains or other areas with very steep gradients, and endangered habitats and habitats of endangered and rare species.

MPSA No. 213-2005-IVB for Rio Tuba Nickel's Limestone Quarry - On April 28, 2005, RTN was issued another MPSA for a total area of 84.5364 hectares with an ECC for 13 hectares in Bataraza, Palawan. This MPSA was also given a validity of twenty-five (25) years renewable for another twenty-five (25) years subject to mutually agreed upon terms and conditions. This MPSA covers the Sitio Gotok limestone pit, whereby limestones are being sold to CBNC and Unichamp Mineral Philippines, Inc. The terms and conditions of this MPSA mirror the terms of MPSA No. 114-98-IV granted to RTN, albeit covering mining of limestone rather than nickel products.

B. Bulanjao Exploration

MPSA Application for expiring mining lease contracts - On June 17, 2003, RTN filed an application to renew and to convert into MPSAs fourteen (14) existing mining lease contracts which were due to expire from June 2003 to August 2004. The application included six (6) small mining blocks of new areas located within the said existing mining lease contracts.

No operations are currently being conducted in these areas. The application remains pending.

HINATUAN MINING CORPORATION

A. Taganaan Mine

MPSA 246-2007-XIII - On July 25, 2007, HMC was granted a MPSA covering 773.77 hectares of mineral land in Hinatuan Island, Barangay Talavera, Taganaan, Surigao del Norte within Parcel II of the Surigao Mineral Reservation for a period of twenty-five (25) years renewable for another twenty-five (25) years subject to mutually agreed upon terms and conditions.

However, with the depleting resources of HMC, its mine life is estimated to be until two years only based on its remaining direct shipment ores (DSO). Feasibility studies are currently on-going to determine the possibility of HMC delivering low-grade limonite ores to CBNC, one of the local nickel processing plants in the Philippines, to further extend its mine life. In addition, drilling of areas are still ongoing in the hope of finding additional ore resources.

B. Manicani Mine

MPSA No. 012-92-VIII - The Manicani mine is subject to MPSA No. 012-92-VIII granted on August 13, 1992 for 1,165 hectares. It has a term of twenty-five (25) years and is renewable for another term not exceeding twenty-five (25) years subject to mutually agreed upon terms and conditions. An application for the renewal of MPSA No. 012-92-VIII is pending approval before the DENR.

On May 1, 2002, the DENR ordered the suspension of mining operations in Manicani pending a conduct of investigation in view of the complaints of the Roman Catholic Bishop. In a decision dated August 2, 2004, an arbitral panel of the Mines Adjudication Board, MGB, Region 8, the MPSA was ordered cancelled. The basis for the decision of the Board was the alleged violation of the ECC. As a result, mining operations in Manicani remain suspended. The mining operations were found by the Board to be causing pollution of the seawater of Manicani Island. A Memorandum of Appeal dated December 23, 2004 was filed by HMC and its MPSA was upheld by the Mines Adjudication Board on September 4, 2009. Incidentally, a Letter of Authority to Dispose Nickel Stockpile was issued by MGB on July 1, 2014. From May to August of 2016, five (5) shipments were realized for the disposal of said stockpiles, after which, shipments were suspended by MGB. This left behind almost 900,000 WMT of stockpiles which were already approved for disposal.

On May 23, 2016, HMC applied for the renewal of its MPSA in Manicani which expired on October 28, 2017. Said application is pending before the DENR.

HMC filed a supplemental letter to its MPSA renewal application on October 29, 2018 with an alternative prayer for the extension of the term of MPSA No. 012-92-VIII corresponding to the number of years HMC was not able to conduct mining operations. However, in a letter dated

July 1, 2019, the MGB Regional Director denied the application of HMC for renewal/extension of term of MPSA No. 012-92-VIII. HMC's subsequent Motion for Reconsideration was also denied in a letter dated August 8, 2019 and was directed to file its appeal with the MGB Central Office (MGB-CO). To date, HMC's appeal has not been resolved by the MGB-CO. Pending the MGB-CO's decision on HMC's appeal, HMC is willing to handle the care and maintenance of the mine site in the Contract Area of the aforementioned MPSA.

TAGANITO MINING CORPORATION

A. Taganito Mine

MPSA No. 266-2008-XIII - TMC was granted a MPSA on June 18, 2009 for a period of twenty-five (25) years subject to renewal as may be mutually agreed upon. The MPSA covers an area of 4,862.7116 hectares located at the Barangays of Hayanggabon, Urbiztondo, Taganito and Cagdianao, Municipality of Claver, Province of Surigao del Norte.

B. Kepha Exploration

MPSA No. 284-2009-XIII - On June 19, 2009, Kepha was issued a MPSA covering 6,980.75 hectares of mineral land situated in the Municipality of Claver, Province of Surigao del Norte within Parcel I of the Surigao Mineral Reservation. The MPSA is for a period of twenty-five (25) years and renewable for another twenty-five (25) years as may be mutually agreed upon by the parties.

The terms and conditions of this MPSA mirror the terms of MPSA No. 266-2008-XIII granted to TMC.

An Operating Agreement dated February 14, 2007 was executed by and between TMC and Kepha for a term of twenty-five (25) years from February 14, 2007, whereby TMC shall maintain the mining rights covering the mineral property in good standing for and on behalf of Kepha.

C. La Salle Exploration

La Salle filed an application for MPSA denominated as APSA No. 000073-XIII covering 6,824 hectares of mineral land situated at Brgy. Sicosico, Municipality of Gigaquit, Surigao del Norte, Mindanao for the development of limestone deposits as mine.

On December 18, 2006, La Salle entered into an Operating Agreement with TMC for a term of twenty-five (25) years whereby TMC shall maintain the mining rights of La Salle covering the aforesaid properties and to keep the rights in current and good standing for and on behalf of La Salle. On August 12, 2010, La Salle submitted to the MGB an amended MPSA plan, reducing the area from 6,824 hectares to 2,234.96 hectares.

On January 11, 2016, TMC issued a Notice of Exclusion of the limestone deposit from the Operating Agreement to La Salle as TMC is no longer interested in the exploration and/or development of the limestone deposit inside the property.

CAGDIANAO MINING CORPORATION

Cagdianao Mine

MPSA No. 078- 97- XIII - On November 19, 1997, East Coast Mineral Resources Co., Inc. (East Coast) was granted a MPSA for a period of twenty-five (25) years and renewable upon such terms and conditions as may be mutually agreed upon. The MPSA covers an area of 697.0481 hectares situated at Barangay Valencia, Municipality of Cagdianao, Province of Dinagat Islands, Surigao del Norte.

On the same date, a MOA was executed between CMC, as Operator, and East Coast for a period of ten (10) years from the effectivity of the MOA whereby East Coast grants CMC the exclusive right to explore, develop and utilize the mineral property covered by the MPSA. On November 19, 2007, the MOA was renewed for a period of fifteen (15) years, covering the remaining term of the MPSA. On December 18, 2015, a Supplemental Agreement was executed by CMC and East Coast, providing for, among others, an automatic renewal of the MOA for another twenty-five (25) years, or from 2022 to 2047.

DINAPIGUE MINING CORPORATION

On July 30, 2007, the PGMC and the Government entered into a MPSA, which allows PGMC to explore, develop and mine nickel ore within the contract area covering 2,392 hectares in the Municipality of Dinapigue, Province of Isabela.

On January 6, 2009, PGMC and DMC executed a Deed of Assignment transferring to DMC all the rights, title and interest in and into the MPSA over the contract area.

Under the MPSA, DMC shall pay the Government a 2% excise tax. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of DMC, with approval from the Government.

CORDILLERA EXPLORATION CO., INC.

CExCI has an EP over the Manmanok Property in Apayao Province, an application for EP over the Kutop Property in the province of Abra, and an application for Financial or Technical Assistance Agreement over the Mankayan Property, within the adjoining provinces of Benguet, Ilocos Sur and Mountain Province. A portion of the AFTA, covering the grounds in Mankayan, Benguet and Cervantes, Ilocos Sur, were converted to applications for EP.

NEWMINCO PACIFIC MINING CORPORATION

Newminco, which was acquired by CExCI in December 2015, holds an EP for copper, gold, and related base and precious metals over an area located in Cabangan, San Felipe, and San Marcelino in the province of Zambales. The decision to acquire Newminco was made following the discovery of outcropping quartz veins, the sampling of which in part returned good assays for gold. The EP 001-2015-III expired in July 2017 and its renewal was approved by MGB on March 3, 2020.

B. MINERAL RESOURCES AND RESERVES

As of December 31, 2019, the Company's Total Mineral Resources and Ore Reserves in accordance with Philippine Mineral Reporting Code (PMRC) are as follows:

Ore	Class	Tonnes (kWMT)	Tonnes (kDMT)	% Ni	% Fe	Contained Ni (kt)
*Ore Reserves**						
Saprolite	Proved and Probable	104,562	70,094	1.47	12.74	1,028
Limonite	Proved and Probable	232,531	156,298	1.14	40.57	1,780
*Mineral Resources***						
Saprolite	Measured & Indicated	162,337	108,057	1.44	12.80	1,556
Limonite	Measured & Indicated	262,647	175,842	1.13	41.36	1,994
Saprolite	Inferred	44,536	29,163	1.26	13.64	367
Limonite	Inferred	20,499	13,747	1.09	35.50	149

** This ore reserves estimate was prepared by Engr. Aloysius C. Diaz (BSEM), Vice President for Operation of NAC. Engr. Diaz is a Competent Person under the definition of the PMRC and has sufficient experience as to the type of deposit and mineralization. He is a licensed mining engineer with PRC registration number 980. He has given his consent to the attachment of this statement to the 17-A 2019 Annual Report concerning Ore Reserve Estimation.*

*** This mineral resources estimate was prepared by Ms. Kristine Grace C. Victoria, Geologist of NAC. Ms. Victoria is a Competent Person under the definition of the PMRC and has sufficient experience as to the type of deposit and mineralization. She is a licensed geologist with License number 1721. She has given her consent to the attachment of this statement to the 17-A 2019 Annual Report concerning Mineral Resources Estimation.*

C. PROCESSING FACILITIES

CBNC

Facility	Coral Bay HPAL nickel processing plant
Location	In a Special Economic Zone adjacent to Rio Tuba mine
Ownership	NAC (10%) Mitsui and Co., Ltd. (Mitsui; 18%) Sojitz Corporation (18%) SMM (54%)
Operations	Commissioned in 2005 with design capacity of 10,000 tonnes per year of contained nickel. Capacity doubled to 20,000 tonnes per year of contained nickel in June 2009 and attained annual capacity of 24,000 tonnes in 2010 due to facility expansion.
Technology	HPAL process
Source of ore	Rio Tuba mine
Product	Nickel-cobalt sulfide sold exclusively to SMM

The Company acquired its 10% equity interest in CBNC, the Philippine's first HPAL nickel processing plant, by way of property dividend distributed by RTN in March 2014. A consortium of Japanese companies led by SMM holds the remaining 90% equity interest. The plant was constructed adjacent to the Rio Tuba mine in an area designated as a Special Economic Zone by the Philippine Export Zone Authority (PEZA). As such, CBNC enjoys tax incentives, including a tax holiday. All of the limonite ore required for the plant is supplied by RTN from its extensive stockpile and from newly mined ore. RTN also supplies limestone and undertakes certain materials handling and transportation services. The plant produces a nickel sulfide precipitate containing approximately 57% nickel and 4% cobalt, which is sold exclusively to SMM for refining at its Nihama refinery. The facility uses proprietary SMM technology under a non-exclusive license.

THNC

Facility	Taganito HPAL nickel processing plant
Location	In a Special Economic Zone adjacent to the Taganito mine
Ownership......................	NAC (10.0%) SMM (75.0%) Mitsui (15.0%)
Operations......................	Commenced commercial operations at full capacity in October 2013 and expected to produce approximately 51,000 tonnes of mixed nickel-cobalt sulfide in 2014, the first full year of commercial operations at full capacity
Technology	HPAL process
Investment cost/financing	US$1,420 million, which further increased to US$1,590.0 million, to be majority debt-financed, with remaining balance to be equity-financed based on ownership
Source of ore	Taganito Mine
Product	Nickel-cobalt sulfide to be sold exclusively to SMM

Following the success of the Coral Bay HPAL facility and taking into account the stockpile and reserves of limonite ore owned by TMC, SMM conducted a feasibility study in September 2009 on a 30,000 tonnes-per-year HPAL plant to be located adjacent to the TMC mine site. The completion of the study led to the signing of a Memorandum of Understanding (MOU) in September 2009 between NAC, TMC, and SMM to proceed with the project. The Company expects that the plant will use technology similar to that used at the Coral Bay HPAL facility but will be triple the original size of the Coral Bay plant. TMC is expected to supply all the limonite ore required for the plant and the nickel-cobalt sulfide product will be sold exclusively to SMM for refining in Japan.

Pursuant to the Taganito HPAL Stockholders Agreement that NAC entered into on September 15, 2010, the project will be undertaken by THNC, a company that will be jointly owned by NAC (as to 22.5%), SMM (as to 62.5%) and Mitsui (as to 15.0%). The agreement contains a term sheet with principal terms of an offtake agreement to be entered into between THNC and TMC for the supply of limonite ore. Similar to the Coral Bay HPAL facility, the plant is located in a Special Economic Zone approved by the PEZA and enjoy tax incentives. The operation of the facility provides an additional dedicated customer for limonite ore from our Taganito mine which allows us to benefit from the higher percentage of payable nickel available further downstream in the nickel value chain.

The estimated total cost is US$1.7 billion, which includes capital expenditures of US$1.6 billion for the plant, working capital and US$100.0 million of interest accrued during the construction phase. An estimated of US$1.1 billion of the project costs will be financed with debt financing that will be incurred by THNC. Under the terms of the Stockholders Agreement, we will be required to guarantee a portion of such debt financing equal to our 22.5% equity interest in THNC. On September 15, 2010, we entered into an agreement with SMM whereby SMM will guarantee our pro-rata portion of THNC's loan obligation in exchange for the payment of an annual guarantee service fee to SMM of 1% of our pro-rata share of the outstanding loan obligation.

In 2016, we made a strategic decision to reduce our ownership in the Taganito plant from 22.5% to 10%, the same equity level that we have in the Coral Bay plant. The reduction in our equity was achieved by a sale of shares to the majority owner of the plant and one of our major shareholders, SMM.

In the absence of cost overruns or major expansion plan, THNC is expected to distribute all of its available cash as dividends to shareholders in any financial year, after payments have been made for operating expenses, applicable taxes, capital expenditure, working capital, scheduled loan principal and interest repayments, and after making provisions for upcoming installments of the loans and required working capital.

D. REAL PROPERTIES

TMC owns the following parcels of land located in Surigao City:

1) a parcel of land with a total area of 43,237 square meters in Barangay Rizal and with Transfer Certificate of Title (TCT) No. 162-2011000392; and
2) a parcel of land with a total area of 88,640 square meters in Barangay Ipil and with TCT No. 162-2012000481, which is intended for leasing to THNC in the future

Likewise, HMC owns a parcel of land with a total area of 3,500 square meters located in Barangay Luna, Surigao del Norte under TCT No. 162-2013000096. HMC constructed a building on the said land which is currently being used as a liaison office of NAC's mining companies in Surigao.

NAC owns a parcel of land with a total area of more or less 20,000 square meters which is located in Barangay Quezon, Surigao del Norte. NAC constructed its diesel power plant on the said land.

MGPC has purchased some 48 hectares of its geothermal project site in Naujan, Oriental Mindoro.

E. SERVICE CONTRACTS

The Group's power companies hold the following service contracts:

Solar Energy Service Contract No. 2015-01-099

On January 20, 2015, EPI entered into a SESC No. 2015-01-099 with the DOE which grants EPI the right to explore, develop and utilize the solar energy resources within the contract area of 324 hectares in the province of Pili, Camarines Sur.

Under the SESC, EPI assumes all the technical and financial risks without any guarantee from the Philippine Government and shall not be entitled to reimbursement for any expense incurred in connection with the SESC.

The SESC carries a non-extendible two (2) year period of pre-development stage, which involves the preliminary assessment and feasibility study. The SESC shall remain in force for the remainder of twenty-five (25) years from date of effectivity if the solar energy resources are discovered to be in commercial quantities. If EPI has not been in default of any material obligations under the SESC, the DOE may grant EPI an extension of the SESC for another twenty-five (25) years. The full recovery of the project development costs incurred in connection with the SESC is dependent upon the discovery of solar energy resources in commercial quantities from the contract area and the success of future development thereof. EPI is currently assessing the feasibility of the project and has not yet started the exploration and pre-development activities.

After doing initial pre-development activities and re-evaluation of strategic direction, EPI concluded that there is no compelling reason for it to proceed with the development of the project covered by this SESC. In January 2020, EPI requested DOE for voluntary termination of this SESC.

Solar Energy Service Contract No. 2013-10-039
On October 31, 2013, Jobin entered into a SESC with the DOE. The SESC covers an area of approximately 2,997 hectares in the municipalities of Morong and Hermosa, in the province of Bataan. The SESC is for a period of twenty-five (25) years, inclusive of a two (2) year pre-development stage, and renewable for another twenty-five (25) years. The government share under the SESC shall be 1% of the gross income from the sale of electricity generated from the solar energy operations.

On August 28, 2015, Jobin was granted a Certificate of Confirmation of Commerciality by the DOE for its 100.44 MW Sta. Rita Solar Power Project located in Mt. Sta Rita, Subic Bay Freeport Zone. The certificate converts the project's SESC from exploration/pre-development stage to the development/commercial stage.

On March 11, 2016, Jobin's Certificate of Confirmation of Commerciality originally rated for the 100.44MW was amended by DOE to 7.14MW and 92.86MW Sta. Rita Solar Power Project Phase I and II, respectively.

Wind Energy Service Contract No. 2013-10-062
On October 31, 2013, Jobin entered into a WESC with the DOE. The WESC covers an area of approximately 2,997 hectares in the municipalities of Morong and Hermosa, in the province of Bataan. The WESC is for a period of twenty-five (25) years, inclusive of a three (3) year pre-development stage, and renewable for another twenty-five (25) years. The government share under the WESC shall be 1% of the gross income from the sale of electricity in the wind project.

Geothermal Renewable Energy Service Contract No. 2016-02-060
GRESC No. 2010-02-013, which covers an approximate area of 3,914 hectares in the three (3) barangays of Montelago, Montemayor and Melgar-B in Oriental Mindoro, involves the development of geothermal well clusters and a power plant. The steam extracted from the geothermal wells will power a geothermal power station with an output capacity of at least 20MW. Once completed, the addition of geothermal power into the present mix of Mindoro's electricity sources will have a stabilizing effect on the grid where the entire island is located.

The Project is in the exploration stage as at December 31, 2019.

As RE Developer, EPI undertakes to provide financial, technical, or other forms of assistance with the DOE, and agrees to furnish the necessary services, technology, and financing for the geothermal operations. EPI shall assume all financial risks such that if no geothermal resources in commercial quantity is discovered and produced, EPI shall not be entitled to reimbursement for any expenses incurred in connection with the GRESC.

Certificate of Registration No. 2014-02-054 shall remain in force for the remainder of twenty-five (25) years from date of effectivity if geothermal resources in commercial quantity are discovered during the pre-development stage, or any extension thereof. Moreover, if EPI has not been in default in its obligations under the GRESC, the DOE may grant an additional extension of twenty-five (25) years, provided that the total term is not to exceed fifty (50) years from the date of effectivity.

On November 24, 2014, EPI and MGPC entered into a Deed of Assignment for the assignment of EPI's rights and obligations under the GRESC to MGPC. On December 5, 2014, EPI applied with the DOE to transfer the GRESC to MGPC. The DOE approved EPI's application on February 16, 2016 under Certificate of Registration No. 2016-02-060.

The Project is currently at the exploration phase and is expected to have an operating capacity of 40MW. The geothermal plant will supply electricity to Oriental Mindoro and Occidental Mindoro at 20MW capacity each.

On February 26, 2019, MGPC received the Confirmation of Commerciality for the 10MW Project from the Philippine Government, through the DOE.

MGPC has actively pursued to seek potential investors for the drilling of production wells until the project achieves financial close and has been engaged in various social projects ranging from a series of community lectures, focusing on safety and health and environmental awareness, to educational activities.

Geothermal Renewable Energy Service Contract No. 2010-02-010
By virtue of RA 9513 known as the RE Act of 2008, on February 1, 2010, the DOE issued to BGI GRESC No. 2010-02-010, converting its Geothermal Services Contract (GSC-09) issued on July 10, 2008 for the exploration, development and exploitation of geothermal resources covering the geothermal field in Biliran Province (previously a municipality of Leyte). By virtue of such agreement, BGI is entitled to enjoy an income tax holiday for a period of seven (7) years from the start of its commercial operation, duty free importation of machinery for ten (10) years, and 0% VAT, among others.

On December 28, 2014, BGI received the Confirmation of Commerciality for the Project from the DOE. There are a total of eight (8) wells drilled, with vertical, deviated or directional well tracks. BGI has continued to conduct activities for maintenance of the existing wells and secure the necessary permits and licenses related to the Project.

Geothermal Renewable Energy Service Contract No. 2017-03-056
This GRESC is a spin-off of the above BGI GRESC, issued by the DOE, and delineates the northern area of the island province of Biliran as a separate BGI exclusive development zone with a greenfield status.

F. LIENS AND ENCUMBRANCES

As at December 31, 2019, RTN and Jobin have fully settled their loans from SMM and LBP, respectively, which resulted to the release of mortgage and collaterals pledged over the said loans.

Item 3. LEGAL PROCEEDINGS

In the ordinary course of NAC's business, its subsidiaries and affiliates are a party to various legal actions that are mainly labor cases that it believes are routine and incidental to the operation of its business. The Group does not believe that it is subject to any ongoing, pending or threatened legal proceeding that is likely to have a material effect on our business, financial condition or results of operations. However, there are a few cases that are now pending with the Courts.

<u>*Asiacrest Marketing Corporation (Asiacrest) - First Integrated Bonding and Insurance Co. (FIBIC) Case*</u>
On May 30, 2016, Jobin filed a complaint against Asiacrest and FIBIC before the Construction Industry Arbitration Commission (CIAC), docketed as CIAC Case No. 23-2016, for Asiacrest's breach of its EPC Contract for the 100MW solar power plant in Subic. Jobin sought to hold Asiacrest liable for amounts not to exceed ₱1,458.0 million. Jobin sought to hold FIBIC, being the surety which secured Asiacrest's performance of its obligation, jointly and severally liable to the extent of the value of the performance

bond of ₱727.5 million. On March 10, 2017, the Arbitral Tribunal rendered a final award in Jobin's favor. On March 29, 2017, Jobin moved for the issuance of a writ of execution with the CIAC.

On March 23, 2017, FIBIC filed a Petition for Review with application for the issuance of a Temporary Restraining Order (TRO) with the Court of Appeals (CA) which was granted on April 10, 2017 conditioned upon FIBIC posting a bond equivalent to the award adjudged against it in the Final Award of CIAC. On April 18, 2017 FIBIC moved to reduce the injunction bond to 1% of the amounts adjudged against it under the Final Award, which was opposed by Jobin on May 2, 2017.

In the meantime, the CIAC ordered the issuance of a writ of execution against Asiacrest on May 8, 2017 and against FIBIC on June 13, 2017. On July 10, 2017 the CA granted the Motion of FIBIC to reduce the bond and thereafter, August 10, 2017, issued a TRO to enjoin the execution of the Final Award. The TRO expired on October 9, 2017. On November 29, 2017, the CA denied FIBIC's application for a writ of preliminary injunction.

On December 29, 2017, Jobin received FIBIC's Petition for Certiorari with the Supreme Court (SC). FIBIC contests the resolution of the CA denying its application for a writ of preliminary injunction. This Petition for Certiorari was denied by the SC for failure of FIBIC to show any reversible error in the CA Resolution. On June 6, 2018, the SC's resolution became final and executory and recorded in the Book of Entries of Judgments. The CA, subsequently issued a Joint Decision on the merits of the Petition for Review of Asiacrest and FIBIC. The Joint Decision dismissing the said Petition for Review and affirmed the Final Award with some modifications (CA Decision). FIBIC filed a Petition for Certiorari in the SC assailing the CA Decision.

As of February 8, 2019, there is no court-issued TRO or writ of preliminary injunction which would serve to enjoin the execution of the Final Award, whether against Asiacrest or FIBIC. However, the Insurance Commission (IC) has placed FIBIC under conservatorship and on July 24, 2018 issued a Notice of Stay Order suspending all payment of claims against FIBIC effective August 3, 2018, except on prior approval by the IC or until further notice. Also, on January 21, 2019, CIAC issued an Order staying the execution of the CIAC Final Award against FIBIC during the effectivity of the Stay Order issued by the IC.

On June 26, 2019, the Company and JSI signed a deed of assignment, wherein JSI assigns, transfers and conveys unto the Company, on a non-recourse basis, all its rights, title and interest in and to the ACMC and FIBIC in partial payment of the Company's advances to JSI, to the extent ₱514,706,196, effective as at December 31, 2018. As a result of the increased credit risk associated to ACMC, the Company recognized provision for impairment losses on advances to a contractor amounting to ₱514,706,196 as at December 31, 2018.

Occidental Mindoro Electric Cooperative, Inc. (OMECO) – MGPC Petition for Interim Measure of Protection
On March 13, 2019, MGPC has been involved in a legal case after receiving a "Notice of Seller Default" from OMECO, alleging therein that MGPC has failed to comply with its main obligation under the power supply agreement for the supply of 20MW electricity.

On December 4, 2019, MGPC filed a Petition for Indirect Contempt against OMECO for the latter's competitive selection process activities for its full load power requirement , which violates the Temporary Order of Protection and Status Quo Order issued by Branch 67 of the Pasig City Regional Trial Court.

On January 6, 2020 the Court issued an Order giving the Petition for Indirect Contempt due course, directing OMECO to submit a comment thereon within fifteen (15) days from receipt of the Order, and setting the hearing of the petition on March 10, 2020. As at December 31, 2019, MGPC has not yet received a copy of OMECO's comment on the Petition for Indirect Contempt.

TMC Local Business Tax Case
As of December 31, 2019, TMC has a pending petition with the Regional Trial Court of Surigao, Branch 30, docketed as Civil Case No. 8456 for the declaration of nullity of the Claver Municipal Ordinance No. 2017-27 which increased the local business tax imposed on mining companies from 1% to 2% of their gross receipts. The total business taxes paid under protest by TMC for the years 2018 and 2019 amount to Php95.6 million.

TMC Bureau of Internal Revenue (BIR) and Bureau of Customs (BOC) Petitions
TMC has a petition for review and application with BIR for the refund of excess input taxes amounting to Php84 million. In 2019, TMC received check payment from BOC and BIR amounting to Php19 million and Php2 million, respectively. In January 17, 2020, TMC received check payment from BOC amounting to Php56.7 million.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

There were no matters covered under this item submitted in 2019 to the security holders for a vote.

PART II – OPERATIONAL AND FINANCIAL INFORMATION

Item 5. MARKET FOR ISSUER'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

A. MARKET INFORMATION

The stock prices for the Parent Company's common equity for the last three (3) years, after the effect of stock dividends, are as follows:

	High	Low
2017		
1st Quarter	₱4.72	₱3.38
2nd Quarter	₱3.73	₱3.33
3rd Quarter	₱4.44	₱3.11
4th Quarter	₱4.11	₱3.32
2018		
1st Quarter	₱3.83	₱3.27
2nd Quarter	₱3.44	₱2.53
3rd Quarter	₱3.06	₱2.33
4th Quarter	₱2.80	₱1.94
2019		
1st Quarter	₱2.88	₱2.22
2nd Quarter	₱2.58	₱2.09
3rd Quarter	₱4.90	₱2.16
4th Quarter	₱4.19	₱2.89

The share price of the Parent Company's stocks was at ₱1.86 per share as of March 13, 2020.

B. HOLDERS

The Company has 94 shareholders as of the end of 2019, with 13,651,538,117 common shares issued and outstanding. The top 20 stockholders of the Company as at December 31, 2019 are as follows:

Name	Citizenship	Shares	% of Ownership
PCD Nominee Corporation (Filipino)	Filipino	8,405,279,170	61.42%
Sumitomo Metal Mining Philippine Holdings Corporation (SMMPH)	Filipino	2,600,384,267	19.00%
Nonillion Holding Corp.	Filipino	1,296,000,000	09.47%
PCD Nominee Corporation (Non-Filipino)	Foreign	944,872,089	06.90%
Pacific Metals Co., Ltd.	Japanese	366,022,233	02.67%
Gerard H. Brimo	Filipino	26,641,344	00.19%
William T. Enrile &/or William R. Enrile II &/or Nelly R. Enrile	Filipino	20,880,000	00.15%
Ricardo Sy Po or Angelita Tan Po or Leonardo Arthur Tan Po	Filipino	8,508,377	00.06%
Philip T. Ang	Filipino	2,910,103	00.02%
Ronaldo B. Zamora	Filipino	2,340,403	00.02%
Megastar Real Estate Corporation	Filipino	2,340,000	00.02%
Koh Teng Ong Chong	Filipino	1,967,040	00.01%
Rolando R. Cruz	Filipino	1,106,914	00.01%
Eva Policar-Bautista	Filipino	658,123	00.00%
Jose B. Anievas	Filipino	573,750	00.00%
Berck Y. Cheng	Filipino	540,000	00.00%
Steven Ivan Lim Yu	Filipino	523,530	00.00%

Name	Citizenship	Shares	% of Ownership
Josephine Chua Lim	Filipino	457,200	00.00%
RMJ Development Corporation	Filipino	405,000	00.00%
Alvin S. Ison &/or Maria Lea S. Ison	Filipino	310,158	00.00%

C. DIVIDENDS

The following tables show the dividends declared and paid to common shareholders for the years ended December 31, 2019, 2018 and 2017:

Cash Dividends

Year	Date			Per Share		
	Declared	Record	Payable	Before the Stock Dividends	After the Stock Dividends	Total Declared (in millions)
2019	March 14, 2019	March 28, 2019	April 12, 2019	₱0.07	₱0.07	₱957.2
2018	August 28, 2018	September 11, 2018	September 27, 2018	0.30	0.17	2,280.9
2018	March 14, 2018	March 28, 2018	April 10, 2018	0.12	0.07	912.4
2017	March 15, 2017	March 29, 2017	April 11, 2017	0.08	0.04	608.2

Stock Dividends

Year	Date			%	No. of Shares (in millions)	Total Declared (in millions)
	Approved	Record	Issued			
2018	October 9, 2018	October 23, 2018	November 20, 2018	80	7,602.9	₱3,041.2

NAC declares dividends to shareholders of record, which are paid from its unrestricted retained earnings. The Company's dividend policy entitles holders of shares to receive annual cash dividends of up to 30% of the prior year's recurring attributable net income based on the recommendation of its Board of Directors (BOD or Board). Such recommendation will take into consideration factors such as dividend income from subsidiaries, debt service requirements, the implementation of business plans, operating expenses, budgets, funding for new investments and acquisitions, appropriate reserves and working capital, among others. Although the cash dividend policy may be changed by the BOD at any time, the Company's current intention is to pay holders of its shares annual cash dividends at this ratio. Additionally, in the event that new investments, acquisitions or other capital expenditure plans do not materialize, the BOD plans to review the dividend policy and consider increasing the dividend ratio above 30% of the prior year's recurring net income.

NAC's subsidiaries pay dividends subject to the requirements of applicable laws and regulations and availability of unrestricted retained earnings, without any restriction imposed by the terms of contractual agreements. Notwithstanding the foregoing, the declaration and payment of such dividends depends upon the respective subsidiary's results of operations and future projects, earnings, cash flow and financial condition, capital investment requirements and other factors.

Cash dividends are paid to all shareholders at the same time and within thirty (30) calendar days from declaration date. Stock dividends are also issued to all shareholders at the same time but subject to shareholder's approval.

D. RECENT SALES OF UNREGISTERED OR EXEMPT SECURITIES

No unregistered securities were sold in 2019.

Item 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL POSITION AND RESULTS OF OPERATIONS

The following discussion and analysis is based on the audited consolidated financial statements as at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017, prepared in conformity with Philippine Financial Reporting Standards (PFRS) and accompanying Notes to the Consolidated Financial Statements and should be read in conjunction with the audited consolidated financial statements.

The Group has not, in the past five (5) years and since its incorporation, revised its financial statements for reasons other than changes in accounting policies.

Summary Financial Information

The Consolidated Financial Statements as at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 are hereto attached.

The following tables set forth the summary financial information for the three (3) years ended December 31, 2019, 2018 and 2017 and as at December 31, 2019, 2018 and 2017:

Summary Consolidated Statements of Income

	For the Years Ended Dec 31			Horizontal Analysis			
				Increase (Decrease)		Increase (Decrease)	
	2019	2018	2017	2019 vs. 2018	%	2018 vs. 2017	%
	(In thousand pesos)						
Revenues	17,923,294	18,647,672	15,739,296	(724,378)	-4%	2,908,376	18%
Costs	(7,815,156)	(7,449,833)	(6,599,211)	365,323	5%	850,622	13%
Operating expenses	(4,867,354)	(5,106,769)	(3,832,413)	(239,415)	-5%	1,274,356	33%
Finance income	405,598	354,803	301,967	50,795	14%	52,836	17%
Finance expenses	(343,655)	(245,625)	(289,260)	98,030	40%	(43,635)	-15%
Equity in net income of associates	10,383	348,168	197,972	(337,785)	-97%	150,196	76%
Other income (charges) - net	168,824	(217,001)	72,649	385,825	178%	(289,650)	-399%
Provision for income tax	(1,655,506)	(2,108,475)	(1,736,856)	(452,969)	-21%	371,619	21%
Net income	3,826,428	4,222,940	3,854,144	(396,512)	-9%	368,796	10%
Net income attributable to:							
Equity holders of the parent	2,684,969	3,008,057	2,770,768	(323,088)	-11%	237,289	9%
Non-controlling interests	1,141,459	1,214,883	1,083,376	(73,424)	-6%	131,507	12%
	3,826,428	4,222,940	3,854,144	(396,512)	-9%	368,796	10%

Summary Consolidated Statements of Financial Position

				Horizontal Analysis			
	2019	2018	2017	Increase (Decrease)		Increase (Decrease)	
	(In Thousand Pesos)			2019 vs. 2018	%	2018 vs. 2017	%
Current assets	22,023,257	20,980,750	20,898,438	1,042,507	5%	82,312	0%
Noncurrent assets	26,238,696	25,051,757	24,838,661	1,186,939	5%	213,096	1%
Total assets	48,261,953	46,032,507	45,737,099	2,229,446	5%	295,408	1%
Current liabilities	9,920,481	9,866,090	9,614,431	54,391	1%	251,659	3%
Noncurrent liabilities	3,210,211	2,715,587	2,904,480	494,624	18%	(188,893)	-7%
Non-controlling interests	3,761,230	3,786,123	3,761,207	(24,893)	-1%	24,916	1%
Equity attributable to equity holders of the Parent	31,370,031	29,664,707	29,456,981	1,705,324	6%	207,726	1%
Total liabilities and equity	48,261,953	46,032,507	45,737,099	2,229,446	5%	295,408	1%

Summary Consolidated Statements of Cash Flows

	For the Years Ended December 31		
	2019	**2018**	**2017**
		(In Thousand Pesos)	
Net cash flows from (used in):			
Operating activities	5,837,598	4,828,878	5,259,745
Investing activities	(1,573,145)	857,410	(1,470,013)
Financing activities	(2,892,789)	(4,686,750)	(3,779,731)
Net increase in cash and cash equivalents	1,371,664	999,538	10,001
Cash and cash equivalents, beginning	10,784,369	9,635,514	9,647,943
Effect of exchange rate changes in cash and cash equivalents	(212,905)	149,317	(22,430)
Cash and cash equivalents, end	11,943,128	10,784,369	9,635,514

RESULTS OF OPERATIONS

Calendar year ended December 31, 2019 compared with calendar year ended December 31, 2018

Revenues

NAC's total revenues in 2019 was ₱17,923.3 million, lower by ₱724.4 million or 4% compared to ₱18,647.7 million in 2018. The Group sold an aggregate 18.84 million WMT of nickel ore in 2019 as against 19.35 million WMT in 2018. The Group focused more on shipments of its higher value saprolite ore to China resulting to a decline in export shipments in 2019. Lower export shipments combined with a less favorable Peso to U.S. dollar exchange rate led to the decline in revenue.

Sale of Ore and Limestone

The decrease in shipment volume resulted to a decrease in the Group's value of shipments by 6% to ₱16,255.6 million from ₱17,294.3 million.

Of the total volume of ore shipped, direct export of ore, which accounted for 55% of total shipments, dropped to 10.44 million WMT from 11.54 million WMT in 2018. On the other hand, ore deliveries to both the Coral Bay and Taganito processing plants, which accounted for the balance, increased to 8.39 million WMT as compared to 7.81 million WMT in 2018.

In terms of price, the Group realized an average of $6.23 per pound of payable nickel on its shipments of ore to the two (2) HPAL plants in 2019, the pricing of which is linked to the LME. This compares to an average price of $5.95 per pound of payable nickel sold in 2018. However, when expressed is US$ per WMT, which also accounts for the cobalt credits that the Group receives for the cobalt contained in its ore, the Group achieved a realized price of $8.19 per WMT, lower compared to the $9.97 per WMT achieved in 2018.

With respect to export sales, the Group achieved an average price of $23.52 per WMT compared to $21.53 per WMT realized in 2018. On a combined basis, the average price received for sales of both ore exports and ore deliveries to the two (2) plants in 2019 was $16.69 per WMT, slightly lower than the $16.86 achieved in 2018.

On a per mine basis, the Group's Taganito mine accounted for 49% of total shipments during the year. The mine shipped 4.18 million WMT of saprolite ore and 4.98 million WMT of limonite ore, of which 4.93 million WMT were delivered to the Taganito HPAL plant, or a total combined shipment of 9.16 million WMT. The comparable figures for last year were 4.01 million WMT of saprolite ore and 4.80 million WMT of limonite ore, of which 4.25 million WMT were delivered to the Taganito HPAL plant, or a combined shipment of 8.81 million WMT.

The Rio Tuba mine accounted for 26% of total shipments, which consisted of 1.45 million WMT of saprolite ore and 3.43 million WMT of limonite ore delivered to the Coral Bay HPAL plant or a total of 4.88 million WMT. The comparable figures for last year were 2.20 million WMT and 3.55 million WMT or a total of 5.75 million WMT.

Shipments from the Group's Hinatuan mine amounted to 2.02 million WMT in 2019 compared to 2.15 million WMT in 2018. On the other hand, the Cagdianao mine shipped 2.78 million WMT in 2019 versus 2.64 million WMT in 2018.

The realized Peso/U.S. dollar exchange rate for ore sales was ₱51.72 in 2019 compared to ₱53.00 in 2018.

Rio Tuba's revenue from sale of limestone slightly went down to ₱414.2 million in 2019 from ₱447.3 million in 2018.

Sale of Quarry Materials
In October 2019, TMC and THNC entered into a materials supply agreement wherein THNC agrees to purchase and take delivery from TMC an aggregate of 1,000,000 compacted cubic meters of suitable and unsuitable construction materials for THNC's expansion of its tailing storage facility, thus revenues from quarry materials were earned.

Services and Others
The Group's revenue from services and others improved by 22% to ₱793.7 million from ₱650.1 million. Services revenue largely consists of payments made to the Company in consideration for hauling, manpower and other ancillary services that RTN and TMC provide to CBNC and THNC, respectively, and usage fee charged by TMC to THNC for the use of its pier facility. It also includes the capital recovery fee billed by the diesel power plant to SURNECO which amounted to ₱111.9 million in 2019 as against ₱22.4 million in 2018 mainly because the plant was operating at full capacity in 2019 compared to previous year.

Sale of Power
Sale of power jumped by 9% to ₱280.3 million from ₱256.0 million on account of the diesel power plant of NAC in Surigao operating at full capacity of 10MW in 2019 compared to 3-6MW in 2018.

<u>*Costs*</u>
The Group's costs went up by 5% or ₱365.4 million, from ₱7,449.8 million to ₱7,815.2 million.

Cost of Sales
The Group's cost of sales increased by 5% to ₱7,105.9 million in 2019 compared to ₱6,771.0 million in 2018 due to higher production volume and cost per WMT during the current year. There was also a change in sales mix such as the shipments of saprolite ore in China, which have relatively high cost, was higher in 2019 compared to 2018. In addition, cost pertaining to the sale of quarry materials were incurred in 2019.

Cost of Power Generation
Cost of power generation climbed by 5% to ₱377.5 million from ₱360.6 million mainly on account of the diesel power plant operating at full capacity in 2019.

Cost of Services
Cost of services grew by 4% to ₱331.8 million from ₱318.3 million. Costs of services largely consist of the cost of hauling, providing manpower and other ancillary services to CBNC and THNC, plus the costs of maintaining the pier facility used by THNC. The increase in cost of services was attributable mainly to the increase in materials handled by RTN for CBNC.

Operating Expenses

The Group's operating expenses amounted to ₱4,867.4 million in 2019 compared to ₱5,106.8 million in 2018, a decrease of ₱239.4 million, or 5%.

Excise Taxes and Royalties

NAC's excise taxes and royalties was down by only 1% to ₱1,787.3 million from ₱1,804.0 million which was triggered mainly by lower volume and value of shipments in the current year.

Shipping and Loading Costs

Shipping and loading costs dropped by 9% because of lower net demurrage incurred in 2019 which amounted to ₱23.1 million only compared to ₱40.9 million in 2018, lower shipment volume, decrease in other services and fees incurred in 2019 and longer chartering period in 2018 compared to 2019.

General and Administrative

General and administrative expenses slid by 5% from ₱1,213.0 million to ₱1,156.0 million in 2019 mainly due to decrease in representation expenses by ₱23.7 million and adoption of PFRS 16 wherein, instead of recognizing a rent expense, a right-of-use assets for leases that falls within the definition of the standard was recognized in the statement of financial position.

Marketing

Marketing costs went up by 12% from ₱140.2 million to ₱157.0 million in 2019 which was driven mainly by the increase in the commission paid by CMC to its claim owner.

Finance Income

The Group's finance income went up by 14% to ₱405.6 million from ₱354.8 million which arose mainly from higher interest income from short-term cash placements.

Finance Expenses

The Group's finance expenses also rose by 40% to ₱343.7 million from ₱245.6 million due to higher interest rate repricing for bank loans.

Equity in Net Income of Associates

The drop in the equity share in net income from the two (2) plants from ₱348.2 million to ₱10.4 million is mainly attributable to the decline in the average realized price of cobalt, which fell from $37.35 per pound in 2018 to $16.57 per pound in 2019.

Other Income (Charges) - Net

NAC's other income - net went up by 178% to ₱168.8 million income from ₱217.0 million charges due to the impact of a steady appreciation of the peso vis-à-vis the US dollar which resulted to a net foreign exchange loss of ₱263.7 million in 2019, a turnaround from a gain of ₱362.8 million in 2018. However, the decline in 2019 was partially offset by the recognized gains on fair value changes of financial assets amounting to ₱347.7 million, as a result of improved market condition, compared to ₱143.7 million loss last year. Moreover, in 2018, the Group prudently set aside ₱514.9 million provision for impairment losses for the uncollected advances made by Jobin to the contractor for the construction of its solar power facility in Subic Bay Freeport Zone.

Provision for Income Tax - Net

The Group's net provision for income tax was lower by 21% due to lower taxable income base.

Net Income

As a result of the foregoing, NAC's consolidated net income was ₱3,826.4 million in 2019 compared to ₱4,222.9 million in 2018. Net of non-controlling interests, our net income was ₱2,685.0 million in 2019, lower by 11% compared to ₱3,008.1 million in 2018.

Calendar year ended December 31, 2018 compared with calendar year ended December 31, 2017

Revenues
NAC's total revenues in 2018 was ₱18,647.7 million, higher by ₱2,908.4 million or 18% compared to ₱15,739.3 million in 2017.

Sale of Ore and Limestone
The increase in shipment volume was mainly the result of higher ore export sales which, combined with an improvement in average realized ore prices and a more favorable Peso to U.S. dollar exchange rate, resulted to an increase in the Group's value of shipments by 20% to ₱17,294.3 million from ₱14,434.8 million.

Of the total volume of ore shipped, direct export of ore, which accounted for 60% of total shipments, rose to 11.54 million WMT from 9.64 million WMT in 2017. On the other hand, ore deliveries to both the Coral Bay and Taganito processing plants, which accounted for the balance, decreased to 7.81 million WMT as compared to 8.06 million WMT in 2017.

In terms of price, the Group realized an average of $5.95 per pound of payable nickel on its shipments of ore to the two (2) HPAL plants in 2018, the pricing of which is linked to the LME. This compares to an average price of $4.67 per pound of payable nickel sold in 2017. With respect to export sales, the Group achieved an average price of $21.53 per WMT compared to $24.42 realized in the prior year. On a combined basis, the average price received for sales of both ore exports and ore deliveries to the two (2) plants in 2018 was $16.86 per WMT, higher than the $16.17 achieved in 2017.

On a per mine basis, the Group's Taganito mine accounted for 46% of total shipments during the year. The mine shipped 4.01 million WMT of saprolite ore and 4.80 million WMT of limonite ore, of which 4.25 million WMT were delivered to the Taganito HPAL plant, or a total combined shipment of 8.81 million WMT. The comparable figures for last year were 3.05 million WMT of saprolite ore and 4.59 million WMT of limonite ore delivered to the Taganito HPAL plant, or a combined shipment of 7.64 million WMT.

The Rio Tuba mine accounted for 30% of total shipments, which consisted of 2.20 million WMT of saprolite ore and 3.55 million WMT of limonite ore delivered to the Coral Bay HPAL plant or a total of 5.75 million WMT. The comparable figures for last year were 2.12 million WMT of saprolite ore, 3.47 million WMT of limonite ore to the Coral Bay HPAL plant and 0.17 million WMT of limonite ore to Chinese customers or a total of 5.76 million WMT.

Shipments from the Group's Hinatuan mine amounted to 2.15 million WMT in 2018 compared to 2.45 million WMT in 2017. On the other hand, the Cagdianao mine shipped 2.64 million WMT in 2018 versus 1.85 million WMT in 2017.

The realized Peso/U.S. dollar exchange rate for ore sales was ₱53.00 in 2018 compared to ₱50.42 in 2017.

Rio Tuba's revenue from sale of limestone slightly went down to ₱447.3 million in 2018 compared to ₱462.3 million in 2017.

Services and Others
The Group's revenue from services and others improved by 3% to ₱650.1 million from ₱630.1 million. Services revenue largely consists of payments made to the Company in consideration for hauling, manpower and other ancillary services that RTN and TMC provide to CBNC and THNC, respectively, and usage fee charged by TMC to THNC for the use of its pier facility. It also includes the capital recovery fee billed to SURNECO by the diesel power plant which started the operation of its two (2) generator sets in 2018.

Sale of Power
Sale of power jumped by 21% to ₱256.0 million from ₱212.2 million since Jobin, a subsidiary of EPI, generated 42,986 megawatt hours (MWh) of energy in 2018 compared to 39,161 MWh in 2017. The increase in its production was mainly due to the completion of the 32.34 MW capacity in March 2017. Moreover, the diesel power plant of NAC in Surigao started to operate the first of the three (3) generator sets in June 2018 and the second one in December 2018; thus, additional revenue from power generation activities were recognized.

Costs
The Group's costs went up by 13% or ₱850.6 million, from ₱6,599.2 million to ₱7,449.8 million.

Cost of Sales
The Group's cost of sales increased by 12% to ₱6,771.0 million in 2018 compared to ₱6,033.2 million in 2017 due to a hike in diesel prices, which rose by an average of ₱10.00/liter, plus higher consumption during the year, increase in cost of outsourced labor for non-core services and contractor's fee, higher operating and maintenance cost of the conveyors, more equipment rental and increase in materials moved in CMC.

Cost of Power Generation
Cost of power generation climbed by 40% to ₱360.6 million from ₱257.3 million mainly on account of Jobin's higher lease on land and building. In addition, the diesel power plant in Surigao started to operate its two (2) generator sets in 2018; thus, fuel consumption of the plant increased during the year.

Cost of Services
Cost of services grew by 3% to ₱318.3 million from ₱308.7 million. Costs of services largely consist of the cost of hauling, providing manpower and other ancillary services to CBNC and THNC, plus the costs of maintaining the pier facility used by THNC. The increase in cost of services was attributable mainly to the absorption of manpower from the contractors; increase in share in fixed cost, from 3% to 6%; and hike in fuel prices, which rose by an average of ₱10.00/liter.

Operating Expenses
The Group's operating expenses amounted to ₱5,106.8 million in 2018 compared to ₱3,832.4 million in 2017, an increase of ₱1,274.4 million, or 33%.

Excise Taxes and Royalties
NAC's excise taxes and royalties jumped 63% to ₱1,804.0 million from ₱1,103.7 million. Aside from the impact of the Tax Reform for Acceleration and Inclusion (TRAIN) law which increased the excise tax rate from 2% to 4% effective January 1, 2018, the higher volume and value of shipments triggered the significant jumped in the account.

Shipping and Loading Costs
Shipping and loading costs grew by 10% due to the combined effects of more LCTs chartered earlier during the year, increase in the number of shipments from 203 vessels in 2017 to 236 vessels in 2018 and higher stevedoring and wharfage charges as a result of increase in shipment volume.

General and Administrative
General and administrative expenses rose by 41% from ₱863.2 million to ₱1,213.0 million in 2018 and this was driven by higher business taxes paid as a result of a higher income base in 2017 than 2016, payment of ₱8.0 million real property tax for the diesel power plant, higher documentary stamp tax (DST) on shipment remittances and other collections caused by the implementation of the TRAIN law, payment of DST on 80% stock dividends issued by the Parent Company and on other issuances of capital stock of the Group and payment of SEC filing fees for the extension of RTN's corporate life and for the increase in CMC's authorized capital stock. Personnel cost also rose by 51% due to the hiring of new employees (particularly officers/managers), annual increase in employee rates and/or benefits and accrual of the new stock option plan.

Marketing
Marketing costs went up by 45% from ₱96.5 million to ₱140.2 million in 2018 which was driven by the increase in the Group's sales revenue in 2018 compared with 2017. Also, the commission paid by CMC to its claim owner and the marketing fees paid to Mitsubishi Corporation are computed based on a certain percentage of sales revenue.

Finance Income
The Group's finance income went up by 17% to ₱354.8 million from ₱302.0 million which arose mainly from higher interest income from short-term cash placements.

Finance Expenses
The Group's finance expenses dropped by 15% to ₱245.6 million from ₱289.3 million due to the prepayment by EPI of half of its principal bank loans in September 2017.

Equity in Net Income of Associates
The Group's equity in net income of THNC and CBNC rose from ₱198.0 million to ₱348.2 million. Profitable operations of its associates were achieved as a result of higher nickel and cobalt LME prices. Cobalt is a by-product of the processing plants of THNC and CBNC. The favorable peso to U.S. dollar exchange rate also contributed to the significant increase in its equity from associates.

Other Income (Charges) - Net
NAC's other income - net went down by 399% to ₱217.0 million charges from ₱72.6 million income. In 2018, the Group prudently set aside ₱514.9 million provision for impairment losses for the uncollected advances made by Jobin to the contractor for the construction of its solar power facility in Subic Bay Freeport Zone. However, this was partially offset by the depreciation of the Philippine peso against the U.S. dollar which led to the increase in foreign exchange gains by ₱282.5 million.

Provision for Income Tax - Net
The Group's net provision for income tax was higher by 21% due to higher taxable income base.

Net Income
As a result of the foregoing, NAC's consolidated net income was ₱4,222.9 million in 2018 compared to ₱3,854.1 million in 2017. Net of non-controlling interests, its net income was ₱3,008.1 million in 2018, which was higher by 9% compared to ₱2,770.8 million in 2017.

Calendar year ended December 31, 2017 compared with calendar year ended December 31, 2016

Revenues
NAC's total revenues were ₱15,739.3 million in 2017 compared to ₱14,122.7 million in 2016, an increase of ₱1,616.6 million, or 11%.

Sale of Ore
The Group's value of shipments in 2017 rose by 9% to ₱14,434.8 million from ₱13,233.5 million in 2016. Although shipment volumes were lower compared to 2016, the increase in revenues was due to higher average prices, in part the result of a change in the ore mix to higher value ore, and a more favorable Peso to U.S. dollar exchange rate.

The realized price on 9.64 million WMT of ore sales to Japanese and Chinese customers in 2017 averaged $24.42 per WMT compared to an average of $20.77 per WMT on 11.69 million WMT of ore sales realized in 2016.

With respect to low-grade limonite ore sold to both the Coral Bay and Taganito processing plants, which are linked to LME prices, the Company realized an average of $4.67 per pound of payable nickel on 8.06 million WMT sold in 2017. This compares to an average price of $4.39 per pound of payable nickel on 7.56 million WMT sold in 2016.

On a per mine basis, the Group's Taganito mine accounted for 43% of total shipments in 2017. The mine shipped 3.05 million WMT of saprolite ore and delivered 4.59 million WMT of limonite ore to the Taganito HPAL plant, or a total combined shipment of 7.64 million WMT. The comparable figures for 2016 were 2.34 million WMT of saprolite ore and 5.66 million WMT of limonite ore, including 4.11 million WMT delivered to the Taganito HPAL plant, or a combined shipment of 8.00 million WMT.

The Rio Tuba mine accounted for 33% of total shipments, which consisted of 2.11 million WMT of saprolite ore and 3.65 million WMT of limonite ore, including 3.47 million WMT of ore delivered to the Coral Bay HPAL plant or a total of 5.76 million WMT. The comparable figures for 2016 were 2.27 million WMT, 3.89 million WMT and 3.45 million WMT, respectively, or a total of 6.16 million WMT.

Shipments from the Group's Hinatuan and Cagdianao mines were likewise lower in 2017 due to a late start of shipments as a result of prolonged heavy rains. Total shipments from Hinatuan consist of 2.45 million WMT compared to 3.03 million WMT in 2016, while the Cagdianao mine shipped 1.85 million WMT versus 2.07 million WMT in 2016.

On an aggregate basis, the Group sold 17.70 million WMT of nickel ore from its four (4) operating mines in 2017 at an average price of $16.17 per WMT compared to 19.25 million WMT at an average price of $14.51 per WMT in 2016.

The realized Peso / U.S. dollar exchange rate for ore sales was ₱50.42 in 2017 compared to ₱47.38 in 2016.

RTN's revenue from sale of limestone was ₱462.3 million in 2017 compared to ₱340.9 million in 2016, an increase of ₱121.4 million or 36%. The increase was attributable to the 0.05 million WMT or 10% increase in limestone sales in 2017 compared to 2016.

Services and Others
NAC's revenue from services and others was ₱630.1 million in 2017 compared to ₱530.3 million in 2016, an increase of ₱99.8 million, or 19%. Services revenue largely consists of payments made to the Company in consideration for hauling, manpower and other ancillary services that RTN and TMC provides to CBNC and THNC, respectively, and usage fee charged by TMC to THNC for the use of its pier facility. The increase in revenue from services and others was mainly attributable to the 18% increase in volume handled by TMC.

Sale of Power
In 2017, the Group generated revenue from its power generation activities, primarily from solar power, amounting to ₱212.2 million whereas there was only ₱18.0 million in 2016. The power operations started only in May 2016.

<u>*Costs*</u>
The Group's costs amounted to ₱6,599.2 million in 2017 compared to ₱6,237.5 million in 2016, an increase of ₱361.7 million, or 6%.

Cost of Sales
The Group's cost of sales was ₱6,033.2 million in 2017 compared to ₱5,907.2 million in 2016, an increase of ₱126.0 million, or 2%. Personnel cost was higher by ₱143.5 million due to annual salary adjustment and new regularized employees; production overhead was higher by ₱330.2 million due to increase in fuel cost and equipment rental; and outside services was higher by ₱81.4 million due to higher materials handled by the contractors. However, the increase was partially offset by the decrease in depreciation, amortization and depletion and long-term stockpile inventory sold by ₱159.5 million and ₱38.2 million, respectively.

Cost of Power Generation
Cost of power generation amounted to ₱257.3 million in 2017 versus ₱38.3 million in 2016 since the power generation activities of the Group started in May 2016.

Cost of Services
Cost of services was ₱308.7 million in 2017 compared to ₱292.0 million in 2016, an increase of ₱16.7 million, or 6%. Costs of services largely consist of the cost of hauling, providing manpower and other ancillary services to CBNC and THNC, plus the costs of maintaining the pier facility used by THNC. The increase in cost of services was attributable mainly to the 18% increase in volume handled by TMC. Moreover, the fuel cost per liter was higher in 2017 by around 27%.

Operating Expenses
The Group's operating expenses amounted to ₱3,832.4 million in 2017 compared to ₱3,883.4 million in 2016, a decrease of ₱51.0 million, or 1%.

Excise Taxes and Royalties
NAC's excise taxes and royalties were ₱1,103.7 million in 2017 compared to ₱1,006.7 million in 2016, an increase of ₱97.0 million, or 10%. The increase in excise taxes and royalties was attributable to higher revenue from sale of nickel ore and limestone in 2017.

Shipping and Loading
Shipping and loading costs were ₱1,769.1 million for the year 2017 compared to ₱1,930.5 million for the year 2016, a decrease of ₱161.4 million due to the 18% decline in the volume of direct ore export. There was also a decrease in contract fees by ₱254.5 million since most of the shipments were handled in-house and long-term LCT charter contracts expired at the end of the first quarter of 2016. The Group has since entered into short-term LCT charters on a per need basis.

General and Administrative
General and administrative expenses were ₱863.2 million for the year 2017 compared to ₱850.3 million for the year 2016, an increase of ₱12.9 million, or 2%. The increase in personnel costs by ₱45.8 million, depreciation by ₱5.1 million, publicity and promotions by ₱5.0 and other general and administrative expenses, which are composed of numerous transactions with minimal amounts, by ₱19.4 million are the main factors for the increase in the account. However, this was partially offset by the decrease in taxes and licenses by ₱25.3 million, rentals, which is mostly equipment rental, by ₱24.9 million and donations by ₱15.7 million.

Marketing
Marketing costs were ₱96.5 million and ₱95.9 million in 2017 and 2016, respectively. The slight increase in marketing cost was also brought by the increase in the Group's sales revenue in 2017 compared with 2016. Also, the commission paid by CMC to its claim owner and the marketing fees paid to Mitsubishi Corporation are based on a certain percentage of sales revenue.

Finance Income
The Group's finance income was ₱302.0 million in 2017 compared to ₱228.4 million in 2016, an increase of ₱73.6 million, or 32%. The increase in finance income was attributable mainly to the increase in interest income from cash and cash equivalents by ₱60.4 million or 82%; and from available-for-sale debt instruments by ₱13.7 million or 11%.

Finance Expenses
The Group's finance expense was ₱289.3 million in 2017 compared with ₱244.7 million in 2016, an increase of ₱44.6 million, or 18%. The movement in its finance expense arose from interest on bank loans of EPI and Jobin, which increased by ₱58.3 million mainly because in 2016 a part of the interest expense incurred by EPI and Jobin were capitalized as borrowing cost. Accretion of interest on provision for mine rehabilitation and decommissioning also increased by ₱7.2 million due to the ₱263.6 million adjustment in the capitalized cost of mine rehabilitation and decommissioning in 2016. The increase was partially offset by ₱33.4 million decrease in guarantee service fee due to reduction in the Group's share in THNC's results of operations from 22.5% to 10% effective July 1, 2016.

Equity in Net Income of Associates
The Group's equity in net income (losses) of THNC and CBNC was ₱198.0 million income and ₱413.7 million loss in 2017 and 2016, respectively. The results of operations of THNC and CBNC was net income of US$19.0 million and US$20.3 million, respectively, in 2017 compared to a net loss of US$21.4 million and US$21.8 million, respectively, in 2016. The increase in the associates' results of operations was due to lower operating costs and higher cobalt prices, a by-product of THNC and CBNC plants.

Other Income - net
The Group's other income - net in 2017 were ₱72.6 million compared to ₱588.8 million in 2016, a decrease of P516.2 million or 88%. The movement in the account was attributable to the following: 1) the favorable impact of changes in foreign exchange rate in 2017 was lower by ₱282.9 million compared to 2016; 2) a gain of ₱239.6 million on the sale of the Parent Company's 12.5% interest in THNC to SMM was recognized in 2016; 3) impairment losses on available for sale financial assets in 2017 was higher by ₱14.1 million compared to 2016; and 4) decrease in special projects by ₱18.9 million.

Provision for Income Tax - Net
The net provision for income tax was ₱1,736.9 million in 2017 compared to ₱1,449.5 million in 2016, an increase of ₱287.4 million, or 20%. The Group's current provision for income tax in 2017 was ₱1,865.3 million compared to ₱1,441.5 million in 2016, an increase of ₱423.8 million, or 29%, primarily due to the increase in its taxable income in 2017 resulting from higher sales revenue. Its provision for (benefit from) deferred income tax in 2017 was ₱128.5 million benefit compared to ₱8.0 million provision in 2016, a decrease in provision by ₱136.5 million. Movement in provision for (benefit from) deferred income tax arises mainly from the tax impact of lower net unrealized foreign exchange gains in 2017, which resulted to lower provision for deferred income tax by ₱81.5 million as compared in 2016, and the tax impact of the amortization of long-term stockpile inventory sold, which resulted to ₱49.0 million benefit from deferred income tax.

Net Income
As a result of the foregoing, the Group's consolidated net income was ₱3,854.1 million in 2017 compared to ₱2,711.1 million in 2016. Net of non-controlling interests, its net income was ₱2,770.8 million in 2017 compared to ₱1,966.1 million in 2016, an increase of ₱804.7 million, or 41%.

FINANCIAL POSITION

Calendar year as at December 31, 2019 and 2018

As at December 31, 2019, NAC's total assets slightly climbed to ₱48,262.0 million from ₱46,032.5 million as of the end of 2018.

Current assets slightly went up to ₱22,023.3 million from ₱20,980.7 million. Cash and cash equivalents as of yearend 2019 was higher than 2018 since there were no special cash dividends declared and paid during the year.

Noncurrent assets improved by 5% from ₱25,051.8 million to ₱26,238.7 million due to the following:
1) adoption of PFRS 16 wherein, instead of recognizing a rent expense, a right-of-use assets were recognized for leases that falls within the definition of the standard. Total right-of-use assets that were capitalized in 2019 amounted to ₱637.0 million; 2) adjustments in the capitalized cost of mine rehabilitation and decommissioning amounting to ₱204.8 million; and 3) increase in the market value of the investments in Keyland Ayala Properties, Inc. of ₱204.9 million.

Current liabilities rose by 1% to ₱9,920.5 million from ₱9,866.1 million due to the ₱141.6 million increase in income tax payable.

Noncurrent liabilities rose by 18% to ₱3,210.2 million from ₱2,715.6 million due to the adjustments in the capitalized cost of mine rehabilitation and decommissioning by ₱204.8 million and recognition of noncurrent portion of lease liabilities, as a result of PFRS 16 adoption, amounting to ₱581.5 million. However, the increase was partially offset by Jobin's full payment of its ₱300.0 million long-term bank loan.

NAC's equity net of non-controlling interests as at December 31, 2019 slightly improved by 6% to ₱31,370.0 million due to continued profitable operations and net of cash dividends paid.

Calendar year as at December 31, 2018 and 2017

As at December 31, 2018, NAC's total assets slightly climbed to ₱46,032.5 million from ₱45,737.1 million as of the end of 2017.

Current assets slightly went up to ₱20,980.7 million from ₱20,898.4 million following the increase in its receivables from customers by ₱98.6 million, current portion of loan receivable by ₱52.0 million, inventories by ₱241.9 million, and prepayments and other current assets by ₱235.0 million. However, the increase was partially offset by the disposal of one of its portfolio investments managed by an offshore bank.

Noncurrent assets improved by 1% from ₱24,838.7 million to ₱25,051.8 million propelled by the 20% growth in our investments in THNC and CBNC as a result of improved nickel and cobalt LME prices. However, the increase was partially offset by the application of 50% commission and royalties payable against the loan receivable from East Coast and reduction in the capitalized cost of mine rehabilitation and decommissioning.

Current liabilities rose by 3% to ₱9,866.1 million from ₱9,614.4 million due to the ₱180.6 million increase in income tax payable owing to the higher taxable income in 2018 compared to 2017.

Noncurrent liabilities slid by 6% to ₱2,715.6 million from ₱2,904.5 million due to the reduction in the capitalized cost of mine rehabilitation and decommissioning by ₱128.3 million and reclassification of the current portion of long-term debts amounting to ₱60.6 million.

NAC's equity net of non-controlling interests as at December 31, 2018 slightly improved by 1% to ₱29,664.7 million due to continued profitable operations, recognition of additional gains from valuation of financial assets as a result of PFRS 9 adoption and net of cash dividends paid.

CASH FLOWS

Calendar years ended December 31, 2019, 2018 and 2017

Net cash flows from operating activities in 2019 amounted to ₱5,837.6 million compared to ₱4,828.9 million in 2018 and ₱5,259.7 million in 2017. In 2019, proceeds from sale of ore were higher than 2018 and 2017. In 2018, proceeds from sale of ore were also higher compared to 2017 because of increase in shipment volume and improved average realized ore prices. However, costs and operating expenses also went up due to inflation, and various taxes, as a result of the implementation of the TRAIN law, also increased.

Cash from or used in investment activities arose mainly from net acquisitions and/or disposals of property and equipment and financial assets pertaining to debt and equity securities. In 2019 and 2017, the Parent Company's net acquisitions of debt and equity securities amounted to ₱103.8 million and ₱265.4 million, respectively, and the net acquisitions of property and equipment was ₱1,250.5 million and ₱1,474.3 million, respectively, which resulted to cash used for investments of ₱1,573.1 million and ₱1,470.0 million, respectively. In addition, the Group issued loans amounting to ₱543.8 million in 2019. In 2018, the Parent Company received net proceeds of ₱1,581.2 million following the disposal of one of its investment portfolio managed by a foreign bank and the Group's spending for capital expenditures were notably lower compared to the previous year. As a result, in 2018 the Group has cash inflow from investments of ₱857.4 million.

Cash used in financing activities were spent mainly for payments of cash dividends, short-term and long-term debts plus the related interest which amounted to a total of ₱4,214.6 million, ₱6,170.1 million, and ₱3,798.5 million in 2019, 2018 and 2017, respectively. However, these payments were partially offset by the proceeds from bank loans amounting to ₱1,488.9 million in 2019 and 2018.

As at December 31, 2019, 2018 and 2017, cash and cash equivalents amounted to ₱11,943.1 million, ₱10,784.4 million and ₱9,635.5 million, respectively.

TOP FIVE KEY PERFORMANCE INDICATORS

1) *SALES VOLUME*

The volume of saprolite ore that NAC sells largely depends on the grade of saprolite ore that it mines. The volume of limonite ore that it sells to customers in China largely depends on the demand for NPI and carbon steel in China. PAMCO purchases high-grade saprolite ore that the Group is able to extract and ship at any given time. With respect to low-grade saprolite and limonite ore, in periods when the Group is able to extract more ore than it is able to ship, it generally continues its mining operations and stockpiles such ore for sale when demand improves or when prices rise to more attractive levels. As stated above, the volume of the Group's low-grade saprolite and limonite ore sales to Chinese customers is roughly correlated with the LME nickel price, with volume increasing as nickel prices rise. In addition to sales of nickel ore to PAMCO and customers in China, the Group sells limonite ore from its Rio Tuba mine to the Coral Bay HPAL facility, in which we have a 10% equity interest, and from our Taganito mine to the Taganito HPAL facility, in which the Parent Company also holds a 10% equity interest. CBNC purchases an amount of limonite ore from the Group sufficient to meet its ore requirements. The annual capacity of its Coral Bay HPAL facility was originally 10,000 tonnes of contained nickel and was expanded to 20,000 tonnes of contained nickel in the second half of 2009, resulting in a higher volume of limonite ore sales from RTN. In 2010, the Coral Bay HPAL facility was able to attain an annual capacity of 24,000 tonnes as a result of the facility's expansion in 2009 which became fully operational in 2010. The Taganito HPAL facility has an annual capacity of 30,000 tonnes of mixed nickel-cobalt sulfide over an estimated thirty (30) year project life.

Type and Grade of Ore that NAC Mines

NAC realizes higher sales prices for saprolite ore than for limonite ore. Accordingly, the type and grade (which is a factor of nickel content) of the ore that the Group mines affects its revenues from year to year. The quantity of saprolite ore that it mines annually depends on the customer demand and the availability of such ore at its mine sites. The mix between high-and low-grade saprolite ore at the Group's mine sites coupled with its long-term mining plan determines the quantities of each that it extracts on an annual basis. The quantity of limonite ore that it mines on an annual basis depends on the amount of such ore that needs to be removed in order to extract the saprolite ore, as well as market demand.

In 2019 and 2018, NAC sold an aggregate of 18.84 million WMT and 19.35 million WMT, respectively.

2) *TOTAL COST PER VOLUME SOLD*

The total cost per volume of ore sold provides a cost profile for each operating mine and allows the Group to measure and compare operating performance as well as changes in per unit costs from year to year.

The total cost includes cost of sale of ore, shipping and loading costs, excise taxes and royalties, marketing and general and administrative expenses incurred by the Group.

The average total cost per volume sold in 2019 is ₱609.65 per WMT on the basis of aggregate cash costs of ₱11,483.1 million and a total sales volume of 18.84 million WMT of ore. This compares to ₱595.20 per WMT in 2018 on the basis of aggregate cash costs of ₱11,516.5 million and a total sales volume of 19.35 million WMT of ore.

3) *ATTRIBUTABLE NET INCOME*

Attributable net income represents the portion of consolidated profit or loss for the year, net of income taxes, which is attributable to the Parent Company. This is a relevant and transparent metric of the information contained in the consolidated financial statements. The net income attributable to equity holders of the Parent Company is ₱2,685.0 million in 2019 compared to ₱3,008.1 million in 2018.

4) *NUMBER OF HECTARES OF OPEN AREA PER MILLION WMT SOLD*

NAC adheres to the principles and practices of sustainable development. The Group is committed to complying and following environmental regulations by implementing best practices in managing environmental impacts of its operations. In 2018, the DENR, through the issuance of DAO 2018-20, prescribes Guidelines for Additional Environmental Measures for Operating Surface Metallic Mines and provides limits of maximum disturbed areas for nickel mines depending on the scale of their mining operations. The DAO also requires that temporary revegetation be immediately implemented on the disturbed areas. All NAC operating companies are well within the norm of the DENR which is 26 hectares per million WMT sold. In 2019 and 2018, the open hectares per million WMT was 16.63 and 14.72, respectively.

5) ***FREQUENCY RATE***
Health and safety are integral parts of the Group's personnel policies. Its comprehensive safety program is designed to minimize risks to health arising out of work activities and to assure compliance with occupational health and safety standards and rules and regulations that apply to its operations. The Group measures its safety effectiveness through the Frequency Rate which is the ratio of lost-time accidents to total man-hours worked for the year. In 2019 and 2018, NAC's frequency rate is 0.23 and 0.12, respectively.

OFF-BALANCE SHEET ARRANGEMENTS

Under the Suretyship Agreement executed by and between the Parent Company and SBC on August 4, 2015, the Parent Company, solidarily with EPI, guarantees and warrants to SBC, its assigns and successors-in-interest, prompt and full payment and performance of EPI's obligations to SBC (see Note 15 to the Consolidated Financial Statements).

Other than the Suretyship Agreement mentioned above, the Parent Company has not entered into any off-balance sheet transactions or obligations (including contingent obligations), or other relationships with unconsolidated entities or other persons.

Item 7. FINANCIAL STATEMENTS

The audited financial statements are presented in Part V, Exhibits and Schedules.

Item 8. INFORMATION ON INDEPENDENT ACCOUNTANTS AND OTHER RELATED MATTERS

NAC's consolidated financial statements have been audited by SyCip Gorres Velayo & Co (SGV & Co) (a member practice of Ernst & Young Global Limited), independent auditors, as stated in their reports appearing herein.

Mr. Jaime F. del Rosario is the Group's current audit partner. NAC has not had any disagreements on accounting and financial disclosures with its current external auditors for the same periods or any subsequent interim period.

Audit and Audit-Related Fees

For the years 2019, 2018 and 2017, SGV & Co. was engaged primarily to express an opinion on the financial statements of the Parent Company and its subsidiaries.

Non-Audit Services Fees

Non-audit services fees pertain to fees paid to SGV & Co. for the enterprise risk management, tax advisory, transfer pricing study, seminar fees and support services for the adoption of PFRS 9 and 15.

The following table sets out the aggregate fees incurred in 2019 and 2018 for professional services rendered by SGV & Co.:

	2019	2018
	(In Thousands)	
Audit and Audit-Related Services	₱16,086	₱15,169
Non-Audit Services	825	4,515
Total	₱16,911	₱19,684

Audit Committee's Approval of Policies and Procedures

Prior to the commencement of the year-end audit work, SGV & Co. present their program and schedule to the Company's Audit Committee, which include discussion of issues and concerns regarding the audit work to be done. At the completion of the audit works, the Group's audited financial statements for the year are likewise presented by SGV & Co. to the Audit Committee for committee approval and endorsement to the BOD for final approval. The Audit Committee pre-approve the terms of the annual audit services engagement. They also approve, if necessary, any changes in terms resulting from changes in audit scope.

PART III – CONTROL AND COMPENSATION INFORMATION

Item 9. DIRECTORS AND EXECUTIVE OFFICERS OF THE ISSUER

A. LIST OF DIRECTORS, EXECUTIVE OFFICERS AND COMMITTEES OF THE ISSUER

The BOD is principally responsible for the Company's overall direction and governance. The Company's Articles of Incorporation provide for nine (9) members of the BOD, who shall be elected by the stockholders. At present, two (2) of the Company's nine (9) directors are independent directors. The BOD holds office for one (1) year and until their successors are elected and qualified in accordance with the by-laws.

DIRECTORS

The following are the present directors of the Company:

Name	Age	Citizenship	Position	Date First Elected	Date Last Elected	No. of Years served as Director
Gerard H. Brimo	68	Philippine National	Executive Director, Chairman of the Board of Directors	August 1, 2009	May 20, 2019	10 years and 4 months
Philip T. Ang	78	Philippine National	Executive Director and Vice Chairman	July 11, 2008	May 20, 2019	11 years and 5 months
Martin Antonio G. Zamora	47	Philippine National	Executive Director, President and Chief Executive Officer (CEO)	June 16, 2010	May 20, 2019	7 years and 5 months
Luis J. L. Virata	66	Philippine National	Non-Executive Director	July 11, 2008	May 20, 2019	11 years and 5 months
Toru Higo	58	Japanese National	Non-Executive Director	November 6, 2017	May 20, 2019	2 years and 1 month
Masahiro Kamiya	60	Japanese National	Non-Executive Director	August 7, 2018	May 20, 2019	1 year and 4 months
Maria Patricia Z. Riingen	54	Philippine National	Non-Executive Director	May 20, 2019	May 20, 2019	7 months
Fulgencio S. Factoran, Jr.*	76	Philippine National	Independent Director	September 20, 2010	May 20, 2019	9 years and 3 months
Frederick Y. Dy	65	Philippine National	Independent Director	September 24, 2010	May 20, 2019	9 years and 3 months

**Mr. Fulgencio S.Factoran, Jr. was an Independent Director of the Company until his demise on April 5, 2020. On May 8, 2020, Mr. Angelo Raymundo Q. Valencia was elected as Independent Director* vice *Mr. Factoran, to serve the latter's unexpired term.*

Mr. Philip T. Ang is a majority shareholder of Ni Capital Corporation.

Certain information on the business and working experience of the Company's Directors and Executive Officers is set out below:

GERARD H. BRIMO is the Chairman of the Board of Directors of the Company since August 7, 2018. He is a member of the Corporate Governance Committee of the Company. He is also the Chairman of the Board of Directors of all of the Company's subsidiaries and an Independent Director of Security Bank Corporation. Prior to his career in mining, he worked for Citibank for a period of eight (8) years, and was a Vice President in the bank's Capital Markets Group in Hong Kong prior to joining Philex Mining Corporation as Vice President -Finance. Mr. Brimo served as Chairman and Chief Executive Officer of Philex Mining Corporation from 1994 until his retirement in December 2003. He served as President of the Chamber of Mines of the Philippines from 1993 to 1995, as Chairman from 1995 to 2003. He was again elected Chairman in 2017, a position he currently holds. He received his Bachelor of Science degree in Business Administration from Manhattan College, USA and his Master of Business Management degree from the Asian Institute of Management.

PHILIP T. ANG is the Vice Chairman of the Company. He is the Vice Chairman of TMC and a Director of RTN, CMC, HMC, DMC, CExCI, Newminco and EPI. He is an Independent Director of SBC. He was previously involved in the textile business as Chairman and President of Solid Mills, Inc. and Unisol Industries and Manufacturing Corp., and as a Director of Investors Assurance Corp. and International Garments Corp. He received his Bachelor of Science in Business Administration degree from Oregon State University and his Master of Business Administration degree from the University of Denver, USA.

MARTIN ANTONIO G. ZAMORA is the President of the Company and of all the subsidiaries of the Company. He is also the Chief Executive Officer of the Company effective January 1, 2020. Before joining NAC in 2007, Mr. Zamora was the Philippine Country Manager and a Director of UPC Renewables, a global developer, owner and operator of wind farms and solar facilities. Prior to that, he worked for ten (10) years for finance and investment banking firms such as CLSA, Robert Fleming & Co. (UK), Jardine Fleming, and SGV & Co. He received his Bachelor of Science in Management from Ateneo de Manila University (Philippines), his MBA from London Business School (UK), and his Masters in Organizational Psychology from INSEAD.

LUIS J. L. VIRATA is a Director of the Company. He is the founder and Chairman of Amber Kinetics Philippines, Inc. He is also Chairman Emeritus of Exchange Equity Partners Group Corporation, Chairman of Cavitex Holdings, Inc., Vice President of Exchange Properties Resources Corp., and a Director of Benguet Corporation. He is also a Founder and Trustee of Asia Society Philippine Foundation and the Metropolitan Museum of Manila and is a member of the Huntsman Foundation. Mr. Virata previously held positions with Dillon, Read and Co., Crocker National Bank, Bankers Trust Company, Philippine Airlines, NSC Properties, Inc., the Philippine Stock Exchange, the Makati Stock Exchange, and National Steel Corp. He received his Bachelor of Arts and Master of Arts degrees in Economics from Trinity College, Cambridge University and his Master of Business Administration degree from the Wharton School of the University of Pennsylvania.

MARIA PATRICIA Z. RIINGEN was first elected as a Director of the Company on May 20, 2019. She is the President of Manta Equities, Inc and Manta Foundation, Inc and a Director of Mantra Resources Corp. Prior thereto, she held various positions with the Western Union Company from January 2005, and was the Senior Vice President and Regional Head up to August 2016. She was an Executive Director and a member of the Board of Directors of the Asian Development Bank from August 1998 to March 2001; Vice President and Cash Product Management Head of Citibank N.A. from March 1994 to January 1999; and Brand Manager of Procter & Gamble from July 1987 to October 1992. She is a member of the Young President's Organization (YPO). She was among Asia's Top 20 People in Cash Management selected by Finance Asia in 2011 for being one of the region's most influential power players and up-and-coming executives in the cash management industry. In 2013, Ms. Riingen was recognized as one of the 100 Most Influential Filipinas in the World for her accomplishments as a Filipina senior executive working in a global company. In the same year, she received the Pinnacle Group's CSR Award for spearheading a range of initiatives for better access to financial services in the Philippines. She obtained her Bachelor of Science degree in Business Administration, major in Marketing, magna cum laude, from the University of the Philippines.

TORU HIGO is a Director of the Company and is the Senior Deputy General Manager of the Non-Ferrous Metals Division of SMM, in charge of the Osaka Branch. He was the President of SMMPH, CBNC and THNC until 16 May 2019. He began his career with SMM in 1986 and occupied the following positions prior to assuming his current post: Company Secretary of SMM Oceania, General Manager of the Nickel Sales and Raw Materials Department and General Manager of Copper and Precious Metals Raw Materials Department. He received his Bachelor of Science degree in Mathematics from Rikkyo University in Tokyo, Japan.

MASAHIRO KAMIYA was elected as a Director of the Company on August 7, 2018. He is the President of SMMPH, CBNC and THNC. He was an Executive Officer and the Senior Deputy General Manager of Non-Ferrous Metals Division of SMM since June 2017 until 16 May 2019. Mr. Kamiya has held various positions within the SMM Group since he joined the same in April 1982. He was the President and Representative Director of Hyuga Smelting Co. Ltd., a subsidiary of SMM, from April 2016 until his recent resignation therefrom, and General Manager, Administration Department of the Taganito Project Division from September 2010 until March 2016. Prior thereto, he was the Executive Vice President of CBNC from February 2007 to August 2010, and Manager of the Ferro Nickel Section, Nickel Sales & Raw Materials Department of SMM from January 2002 to January 2007. He was also the General Manager of Sumitomo Metal Mining Oceania Pty. Ltd. from April 1998 to December 2001. Mr. Kamiya obtained his Bachelor of Arts in Political Science and Economics from Waseda University in Tokyo, Japan.

FULGENCIO S. FACTORAN, JR. was an independent director of the Company and was the Chairman of the Board Risk Oversight Committee and a member of the Related Party Transactions and Nominations Committees of the Board until his demise on April 5, 2020. Mr. Factoran was also the Chairman of GAIA South, Inc. and Agility, Inc., and an independent director of Atlas Consolidated Mining and Development Corporation. He was previously a Director of Central Azucarera de Tarlac and Business Certification International, Ltd. He previously held several government positions, such as Trustee of the Government Service and Insurance System, Secretary of the DENR, Chairman of the National Electrification Administration, Chairman of the Philippine Charity Sweepstakes, Director of the National Development Corp., Trustee of the Development Academy of the Philippines and Deputy Executive Secretary under the Corazon Aquino administration. He received his Bachelor of Arts in Humanities and Bachelor of Laws degrees, the latter as Valedictorian, from the University of the Philippines and his Master of Laws degree from Harvard Law School, USA.

FREDERICK Y. DY is an Independent Director of the Company, Chairman of the Audit Committee and a Member of the Related Party Transactions, Board Risk Oversight and Corporate Governance Committees of the Board. Mr. Dy is also the Chairman Emeritus of SBC, the Chairman of City Industrial Corporation, the Chairman of St. Luke's Medical Center, a Trustee of St. Luke's College of Medicine, and a Director of Ponderosa Leather Goods Company, Inc. He received his Bachelor of Science degree in Industrial Engineering from Cornell University, USA.

EXECUTIVE OFFICERS

The Company's Executive Officers, together with its Executive Directors, are responsible for its day-to-day management and operations. The following table sets forth information regarding the Company's Executive Officers.

Name	Age	Citizenship	Position
Jose B. Anievas	75	Philippine National	Senior Vice President - Chief Operating Officer/Chief Risk Officer
Emmanuel L. Samson	60	Philippine National	Senior Vice President - Chief Financial Officer, Corporate Governance Officer
Georgina Carolina Y. Martinez	53	Philippine National	Senior Vice President – Compliance and Corporate Services, Assistant Corporate Secretary, Compliance Officer
Rolando R. Cruz	59	Philippine National	Vice President for Project Development and Research
Aloysius C. Diaz	71	Philippine National	Vice President - Operations
Rommel L. Cruz	56	Philippine National	Vice President - Operations
Koichi S. Ishihara	46	Japanese National	Vice President - Marketing and Purchasing
Jose Bayani D. Baylon	57	Philippine National	Vice President - Corporate Communications
Maria Angela G. Villamor	54	Philippine National	Vice President - Internal Audit, Chief Audit Executive (until April 30, 2020) Vice President – Group Controllership

Name	Age	Citizenship	Position
			(May 1, 2020 to present)
Gerardo Ignacio B. Ongkingco	61	Philippine National	Vice President - Human Resources Data Protection Officer
Michio Iwai	68	Japanese National	Vice President
Romeo T. Tanalgo	58	Philippine National	Vice President – Security and Government Relations
Barbara Anne C. Migallos	64	Philippine National	Corporate Secretary
Rogel C. Cabauatan	61	Philippine National	Assistant Vice President – Community Relations and Environment
Jeffrey B. Escoto	44	Philippine National	Assistant Vice President – Technical Services
Marnelle A. Jalandoon	49	Philippine National	Assistant Vice President – Management Information Systems
Ryan Rene C. Jornada	41	Philippine National	Assistant Vice President – Government Relations
Iryan Jean U. Padillo	38	Philippine National	Assistant Vice President – Finance
Patrick S. Garcia	46	Philippine National	Assistant Vice President – Internal Audit (May 1, 2020 to present)

Information on the business and working experience of our Executive Officers is set out below:

MANUEL B. ZAMORA JR. is the Chairman Emeritus of the Board since 7 August 2018 and was Chairman of the Board from 11 July 2008 until 6 August 2018. Mr. Zamora is the founder of the Company. He was Chairman of the Chamber of Mines of the Philippines. Mr. Zamora is a lawyer and a member of the Integrated Bar of the Philippines. He placed third in the 1961 Bar Examinations after receiving his Bachelor of Laws degree from the University of the Philippines.

JOSE B. ANIEVAS is the Senior Vice President for Operations, Chief Operating Officer and Chief Risk Officer of the Company. He started working with TMC in 2009 as its Resident Mine Manager and later as its Vice President for Operations. He has worked with the mining industry for more than fifty (50) years, thirty-seven (37) years with Philex Mining Corporation and Philex Gold Philippines as its Vice President for Operations until his retirement in December 2002, four (4) years as a freelance mining engineer, two (2) years with Carrascal Nickel Corporation, five (5) years with TMC and currently with the Company. He also served the Government in the Professional Regulation Commission as a member of the Board of Examiners for Mining Engineering in 1997-2000 and was President of the Philippine Society of Mining Engineers in the CARAGA region in 2010-2012. He is a Fellow of the Society of Mining Engineers and a Competent Person in the Copper and Gold operations. Mr. Anievas earned his Bachelor of Science in Mining Engineering from Mapua Institute of Technology. He completed the Management Development Program of the Asian Institute of Management.

EMMANUEL L. SAMSON is the Senior Vice President and Chief Financial Officer of the Company and is responsible for the finance and treasury functions of the NAC Group. He is a member of the BOD of EPI and is also its Treasurer. Prior to joining NAC in 2006, Mr. Samson was Senior Country Officer for Credit Agricole Indosuez in the Philippines. Mr. Samson has more than a decade of experience in the Philippine equities markets having held positions with W.I. Carr Indosuez Securities (Phils.) Inc., Amon Securities Corporation and Rizal Commercial Banking Corporation. Mr. Samson obtained his Bachelor of Arts Degree in Economics from De La Salle University – Manila.

GEORGINA CAROLINA Y. MARTINEZ, is the Senior Vice President for Compliance and Corporate Services, Chief Compliance Officer and the Assistant Corporate Secretary of the Company. She is primarily responsible for the Company's Legal and Compliance, Human Resources, Administration, and Information Technology Departments. She is likewise the Chief Compliance Officer of the Company, the Corporate

Secretary of EPI and its subsidiaries, and the Assistant Corporate Secretary of CExCI and Newminco.. Prior to her appointment with the Company, Ms. Martinez was the Senior Vice President for Legal/Human Resources/Administration of EPI. She obtained her Juris Doctor from Ateneo de Manila University and is a member of the Philippine Bar. Ms. Martinez has over 25 years' experience in the field of commercial and corporate law.

ROLANDO R. CRUZ is the Vice President for Project Development and Research of the Company and is responsible for the assessment and development of projects, concepts and plans for the growth and economic sustainability of the business. Engr. Cruz is a licensed mining engineer in the Philippines with over twenty five (25) years of professional experience in both mining operations and project development in gold, copper, chromite, concrete aggregates, nickel, and oil sands deposits using the open pit and underground bulk mining methods. He has held various positions with firms such as Albian Sands Energy, Inc. (Canada), Berong Nickel Corporation, Concrete Aggregates Corporation, Philex Mining Corporation, and Benguet Corporation. Mr. Cruz obtained his Bachelor of Science in Mining Engineering and Masters of Science in Geotechnical Engineering from the Mapua Institute of Technology. He also earned a Post-Graduate Certificate in Strategic Business Economics from the University of Asia and the Pacific. Mr. Cruz placed second in the 1982 Licensure Examinations for Mining Engineers.

ALOYSIUS C. DIAZ is the Vice President for Operations responsible for the Taganito and Cagdianao mines of the Company. Engr. Diaz is a Licensed Mining Engineer and Geologist with forty five (45) years' experience in surface mining and exploration, six (6) years of which were spent in a surface copper mine in Africa and coal mines in Indonesia. He started working with TMC as Resident Mine Manager in 2015. Prior to joining TMC, he worked as Project Director of a gold mining company charged with the rehabilitation of an old underground gold mine. He was a Chief Operating Officer of a large mining contractor with a nickel mining operation in Northern Mindanao. He is a Competent Person for Open Pit Copper and Coal. He is the President of the CARAGA Chamber of Mines. Mr. Diaz received his Bachelor of Science in Mining Engineering and Bachelor of Science in Geology degrees from Adamson University.

ROMMEL L. CRUZ is the Vice President for Operations responsible for the Rio Tuba and Hinatuan mines of the Company since October 8, 2018. Engr. Cruz was a key member of the core team of mining professionals of PT Adaro Indonesia (Adaro) who grew the company to become Indonesia's largest single pit coal mine from 1991 to 2013. Thereafter, he was assigned to other companies within the Adaro Group, first, as Director of Operations of PT Rahman Abdjaya from 2014 to 2016, then as Senior Technical Advisor to the Director of Operations of PT Septaindra Sejati from 2016 to 2017. Prior to his stint in the Adaro Group, he served as Senior Geodetic Engineer of Semirara Coal Corporation from 1989 to 1991. Mr. Cruz obtained his Bachelor of Science degree in Geodetic Engineering from the University of the Philippines.

KOICHI S. ISHIHARA is the Vice President for Marketing and Purchasing. Prior to joining NAC in 2011, he was a Manager and Philippine Representative of PAMCO, handling nickel and stainless market analysis and update in Asian countries. He has also supported establishing a Hydro Metallurgical Processing Plant.
Mr. Ishihara received his Bachelor's Degree in English Language from Kanda University of International Studies, Japan.

JOSE BAYANI D. BAYLON is the Vice President for Corporate Communications. He joined the Company in June 2012. He has over two decades of experience in the field of corporate communications and public affairs. Before joining NAC, he was Vice President and Director for Public Affairs and Communications of The Coca-Cola Export Corporation for fourteen (14) years, and, prior to that, was executive assistant and speechwriter to Mr. Enrique Zobel at E. Zobel Inc. for nine (9) years. He was a public affairs commentator at Radio Station DWWW 774 KhZ from 2001-2011 and has been contributing opinion pieces to the newspaper Malaya Business Insight since 2001. Mr. Baylon obtained his Bachelor of Arts in Political Science degree from the University of the Philippines.

MARIA ANGELA G. VILLAMOR is the Vice President for Group Controllership effective May 1, 2020. She oversees the preparation and management of the Group's operating budgets and is responsible for financial reporting activities. Previously, she was the Company's Vice President for Internal Audit and the Chief Audit Executive. Prior to joining NAC in 2011, she was a Senior Director in the Assurance Division of SGV & Co. She also worked as Senior Manager in KPMG UAE. Ms. Villamor obtained her Bachelor of Science in Commerce degree from the University of San Carlos. She completed the Management Development Program from the Asian Institute of Management.

GERARDO IGNACIO B. ONGKINGCO is the Vice President for Human Resources. His career in Human Resources started in the early 1980s and has been enriched with exposure to various industries; government, manufacturing, agriculture and hospitality. He was past President of the Philippine Quality and Productivity Movement, Davao Chapter. He earned his Bachelor's Degree in Community Development as well as his Masters in Industrial Relations from the University of the Philippines.

MICHIO IWAI is a Vice President of the Company. He was a Vice President of TMC, a subsidiary of the Company, until April 2018. He began his career in PAMCO as a Geologist in its Engineering Department. Thereafter, he served as the Deputy Treasurer of TMC, before becoming the Deputy General Manager - Mineral Resources of PAMCO. He obtained his Bachelor of Science Degree in Earth Science from Waseda University in Japan and his Master's Degree from the Science and Engineering Division of the same university.

ROMEO T. TANALGO is the Vice President for Security and Government Relations of the Company. He was the Consultant of the Company for security matters from 01 May 2019 until his appointment as Vice President on August 6, 2019. He was the Chief of the Armed Forces of the Philippines (AFP) North Luzon Command from 10 March 2016 until his retirement in 04 September 2017. Prior thereto, he was appointed as AFP Vice Chief of Staff on 20 October 2015. He also served as Commandant, Philippine Marine Corps from April 2013 to December 2015. Gen. Tanalgo is a member of the Philippine Military Academy "Matikas" Class of 1983.

RYAN RENE C. JORNADA is the Assistant Vice President for Government Relations of the Company. Prior to joining the Company in 2011, he was an associate in the law firm of Belo Gozon Elma Parel Asuncion and Lucila and was an Election Assistant for the Commission on Elections and Political Affairs Officer of the Congressional Representative of the 2nd District of Iloilo. A member of the Philippine Bar, Mr. Jornada obtained his Bachelor of Laws degree from the University of Santo Tomas.

ROGEL C. CABAUATAN is the Company's Assistant Vice President for Community Relations and Environment. He is responsible for overseeing, guiding and coordinating the environmental and community relations programs of the Company and its operating companies. Mr. Cabauatan has 34 years of experience in environment management, community development and organization, and conflict management gained while working in the government and mining industry. He obtained his Bachelor of Science in Forestry degree from the University of the Philippines at Los Baños.

JEFFREY B. ESCOTO is the Company's Assistant Vice President for Technical Services. He was the Technical Services Group Manager of HMC from December 2013 until August 5, 2019. Prior thereto, he was the Technical Services Head of CMC from 2009 to 2013. He also served as Site Manager of Maxima Machineries, Inc. on various project sites, managing an on site support team in Masbate Gold Project from 2008 to 2009, Oceana Gold's Didipio Gold Copper Mining Project in 2008 and in Rapu Rapu Polymetallic Mine Project of Lafayette Mining in Albay from 2005 to 2008. Mr. Escoto obtained his Bachelor's Degree in Mechanical Engineering from the University of Nueva Caceres in Naga City.

MARNELLE A. JALANDOON is the Company's Assistant Vice President - Management Information Systems. He is responsible for the technology and communications infrastructure operations of the Group. Prior to joining NAC in 2008, Mr. Jalandoon was the Technical Operations Director of Concentrix Technologies, Inc, driving both the Technical Department and the Application Development Teams. He has held various IT positions with Grand International Airways, First Internet Alliance, WebScape, I-Next Internet and PSINET Philippines, garnering more than twenty (20) years' experience in IT Infrastructure and Communications.

Mr. Jalandoon obtained his Bachelor of Science in Computer Science degree from the Philippine Christian University.

IRYAN JEAN U. PADILLO is the Company's Assistant Vice President for Finance. She is responsible for the Company's financial reporting and direct supervision of accounting and financial functions. Ms. Padillo is a Certified Public Accountant. Prior to joining NAC in May 2012 as Senior Finance Manager, she was an Associate Director in the Assurance Group and worked as part of the Finance Group of SGV & Co. She obtained her Bachelor of Science in Accountancy degree from the University of the East.

BARBARA ANNE C. MIGALLOS is the Corporate Secretary of the Company and its subsidiary CExCI. She is the Managing Partner of Migallos and Luna Law Offices, and was a Senior Partner of Roco Kapunan Migallos and Luna from 1986 to 2006. A practicing lawyer since 1980, Ms. Migallos focuses principally on corporate law, mergers and acquisitions, and securities law. She is a Director and Corporate Secretary of Philex Mining Corporation and a Director of Mabuhay Vinyl Corporation, both publicly listed companies. She is also Corporate Secretary of PXP Energy Corporation and of Alliance Select Foods International, Inc. both also listed companies. She is a Director of Philippine Resins Industries, Inc. and other corporations, and is Corporate Secretary of Eastern Telecommunications Philippines, Inc. Ms. Migallos is a professorial lecturer at the DLSU College of Law and chairs its Mercantile Law and Taxation Department.

PATRICK S. GARCIA is the Assistant Vice President - Internal Audit and Chief Audit Executive of the Company effective May 1, 2020. He is responsible for reviewing the Company's organizational and operational controls, risk management policies, and governance He was previously the Assistant Vice President – Finance of the Company's wholly-owned subsidiaries CMC, DMC, and Samar Nickel Mining Resources Corporation. He is a Certified Public Accountant. Mr. Garcia joined the Company in March 2007 as Finance Manager and was promoted to Assistant Vice President – Finance in March 2009. He handled finance matters for various companies within the NAC Group, including HMC, CEXCI, and La Costa Shipping and Lighterage Corporation until 2012. Before joining the Company, Mr. Garcia served as Finance and Accounting Head of BMW Philippines from 2004 to 2006; of Blue Cross, Inc. in 2003, and of KKC Corporation from 1998 to 2002. He was also an auditor in SGV & Co. from 1995 to 1997, where he handled various clients from the manufacturing and trading industry. Mr. Garcia obtained his Bachelor of Science in Accountancy degree from the University of Santo Tomas.

No director or senior officer of the Company is or has been in the past two (2) years, a former employee or partner of the current external auditor.

Also, the Company discloses the transactions of its directors and officers as required by applicable laws and regulations.

B. SIGNIFICANT EMPLOYEES/EXECUTIVE OFFICERS

No single person is expected to make a significant contribution to the business since the Company considers the collective efforts of all its employees as instrumental to the overall success of the Company's performance.

C. FAMILY RELATIONSHIP

Aside from Mr. Martin Antonio G. Zamora being the son and Ms. Patricia Z. Riingen being the daughter of Mr. Manuel B. Zamora, Jr., and Mr. Ryan Rene C. Jornada being a third civil degree relative by affinity of Mr. Manuel B. Zamora, Jr. and a fourth civil degree relative by affinity of Mr. Martin Antonio G. Zamora, none of the Company's Executive Officers are related to each other or to its Directors and substantial Shareholders.

D. INVOLVEMENT IN CERTAIN LEGAL PROCEEDINGS

None of the members of the Company's Board, nor any of its executive officers, has been or is involved in any criminal, bankruptcy or insolvency investigations or proceedings for the past five (5) years and up to the date of this report. None of the members of the Board, nor any executive officer, have been convicted by final judgment of any offense punishable by the laws of the Republic of the Philippines or of any other nation or country. None of the members of the Board nor any executive officers have been or are subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, domestic or foreign, permanently or temporarily enjoining, barring, suspending or otherwise limiting his involvement in any type of business, securities, commodities or banking activities. None of the members of the Board nor any executive officer have been found by a domestic or foreign court of competent jurisdiction (in a civil action), the Commission or comparable foreign body, or a domestic or foreign Exchange or other organized trading market or self-regulatory organization, to have violated a securities or commodities law or regulation.

Item 10. EXECUTIVE COMPENSATION

The table set out below identifies the Corporation's Chief Executive Officer and four (4) most highly compensated executive officers (the "named executive officers") and summarizes their aggregate compensation in 2018 and 2019 and their estimated compensation for 2020. The amounts set forth in the table have been prepared based on what the Company paid for the compensation of its executive officers for the years indicated and what we expect to pay on the ensuing year.

	December 31, 2018			**December 31, 2019**			**December 31, 2020 (Estimated)**		
	Salary	**Bonus**	**Total**	**Salary**	**Bonus**	**Total**	**Salary**	**Bonus**	**Total**
	(In Php Thousands)								
Named executive officers [1]	₱39,539	₱33,308	₱72,847	₱50,672	₱32,762	₱83,434	₱45,166	₱26,668	₱71,834
All other officers and directors as a group unnamed	41,841	20,970	62,811	43,270	22,524	65,794	49,567	16,672	66,239

[1]The named executive officers are: Gerard H. Brimo (Chairman), Martin Antonio G. Zamora (President and CEO), Emmanuel L. Samson (Chief Financial Officer), Jose B. Anievas (Chief Operating Officer), Rolando R. Cruz (Vice President for Project Development and Research).

COMPENSATION OF DIRECTORS

Each of the directors of the Parent Company is entitled to a director's fee for each meeting attended. In addition, the directors who serve in the committees of the BOD are each entitled to a fee for each committee meeting attended.

The table below shows the net compensation of the Company's Directors for each meeting:

Type	Board Meeting	Audit Committee Meeting	Board Risk Oversight	Related Party	Other Meetings	Stock Option
Executive Director	₱10,000	₱-	₱10,000	₱-	₱10,000	Yes
Non-executive Director	10,000	10,000	-	10,000	10,000	Yes, Except for the Non-Filipino Directors
Independent Director	135,000	45,000/ 22,500	45,000/ 22,500	22,500	10,000	Yes

Currently, there are no arrangements for additional compensation of directors.

STOCK OPTION PLANS

On April 5, 2018 and May 28, 2018, the Company's BOD and stockholders, respectively, approved the 2018 Executive Stock Option Plan (the 2018 ESOP or the New Plan) covering up to 155,000,000 shares allocated to the Company's directors, officers, corporate secretary and the officers of its operating mining subsidiaries, specifically those with positions of Assistant Vice President and higher, including all Resident Mine Managers of the operating mining subsidiaries. The optionees of the 2018 ESOP may avail of the ESOP shares at 90% of the Offer Price for a number of ESOP Shares equivalent to up to four (4) times the annual salary of the optionees. In case of non-executive directors and the corporate secretary, their grants shall be the average of the highest and lowest grants within the ESOP. The 2018 ESOP shall be valid for five (5) years commencing from the date of the approval of the New Plan. Options shall vest yearly at a rate of 25% of the entitlement, with the first vesting occurring one (1) year after the grant. The optionee can exercise the vested option by giving notice to the Parent Company within the term of the New Plan, and can opt to either purchase the shares directly at the exercise price or request the Parent Company to advance the purchase price and to sell the shares, in which case the participant will receive the sales proceeds less the exercise price.

On March 13, 2020, the Parent Company's BOD approved the following amendments to the 2018 ESOP:

a) increase in number of shares reserved for the exercise of options to 375,000,000 shares; and
b) inclusion of the Parent Company's subsidiary, CExCI among the subsidiaries covered by the 2018 ESOP.

On March 24, 2014 and June 6, 2014, the Company's BOD and stockholders, respectively, approved the 2014 Executive Stock Option Plan (the 2014 ESOP or the Plan) covering up to 32,000,000 shares allocated to our directors, officers, corporate secretary and the officers of its operating mining subsidiaries, specifically those with positions of Assistant Vice President and higher, including all Resident Mine Managers of the operating mining subsidiaries. The optionees of the 2014 ESOP may avail of the ESOP shares at 90% of the Offer Price for a number of ESOP Shares equivalent to up to four (4) times the annual salary of the optionees. In case of non-executive directors and the corporate secretary, their grants shall be the average of the highest and lowest grants within the ESOP. The 2014 ESOP shall be valid for five (5) years commencing from the date of the approval of the Plan. Options shall vest yearly at a rate of 25% of the entitlement, with the first vesting occurring one (1) year after the grant. The optionee can exercise the vested option by giving notice to the Parent Company within the term of the Plan, and can opt to either purchase the shares directly at the exercise price or request the Parent Company to advance the purchase price and to sell the shares, in which case the participant will receive the sales proceeds less the exercise price.

The cost of share-based payment plan in 2019, 2018 and 2017 amounted to ₱130.5 million, ₱102.4 million and ₱11.0 million, respectively.

As at March 13, 2020, the Parent Company is still waiting for SEC's approval of the exemption from registration of 170,083,608 common shares, which shall form part of the ESOP.

Item 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

A. SECURITY OWNERSHIP OF CERTAIN RECORD AND BENEFICIAL OWNERS

The following table sets forth the record owners and, to the best knowledge of the BOD and Management of the Company, the beneficial owners of more than 5% or more of the Company's outstanding share of common stock as at December 31, 2019 follows:

Title of class	Name, address of record owner and relationship with issuer	Name of Beneficial Owner and Relationship with Record Owner	Citizenship	No. of Shares Held	Percent
Common Stock	PCD Nominee Corporation (Filipino)		Filipino	8,974,087,114	65.9%
Common Stock	Mantra Resources Corporation 30th Floor NAC Tower, 32nd Street, Bonifacio Global City, Taguig		Filipino	0 - Direct 3,529,392,736[1] - Indirect	25.92%
Common Stock	Sumitomo Metal Mining Philippine Holdings Corporation 24F Pacific Star Building Makati Avenue, Makati City	Sumitomo Metal Mining Co., Ltd.	Foreign	2,600,384,267 - Direct 1,014,013,620 - Indirect	26.54%
Common Stock	PCD Nominee Corporation (Non-Filipino)		Foreign	1,958,770,467	14.33%
Common Stock	Ni Capital Corporation 28th Floor NAC Tower, 32nd Street, Bonifacio Global City, Taguig	Philip T. Ang - Vice Chairman	Filipino	0 - Direct 1,830,296,491[2] - Indirect	13.38%
Common Stock	Nonillion Holding Corporation 3/F Corporate Business Centre, 151 Paseo de Roxas Makati City		Filipino	1,296,000,000 - Direct	9.48%

B. SECURITY OWNERSHIP OF MANAGEMENT

The beneficial ownership of the Company's directors and executive officers as of December 31, 2019 follows:

Title of Class	Name of Beneficial Owner	Amount and Nature of Beneficial Ownership	Citizenship	Percent
Common Stock	Manuel B. Zamora Jr.	84,855 - Direct 25,926,753 - Indirect	Filipino	0.19%
Common Stock	Gerard H. Brimo	26,441,344 - Direct 1,918,665 - Indirect	Filipino	0.21%
Common Stock	Philip T. Ang	2,910,103 - Direct 264,664 – Indirect	Filipino	0.02%
Common Stock	Luis J. L. Virata	1 - Direct	Filipino	0%
Common Stock	Martin Antonio G. Zamora	540 - Direct 15,671 – Indirect	Filipino	0%

[1] *Lodged with PCD Nominee Corporation*

[2] *Lodged with PCD Nominee Corporation*

Title of Class	Name of Beneficial Owner	Amount and Nature of Beneficial Ownership	Citizenship	Percent
Common Stock	Fulgencio S. Factoran, Jr.	1,516 - Direct	Filipino	0%
Common Stock	Frederick Y. Dy	1,516 - Direct	Filipino	0%
Common Stock	Toru Higo	2,023 - Direct	Japanese	0%
Common Stock	Masahiro Kamiya	2,023 - Direct	Japanese	0%
Common Stock	Jose B. Anievas	573,750 - Direct 4,353,739 - Indirect	Filipino	0.03%
Common Stock	Emmanuel L. Samson	-	Filipino	0%
Common Stock	Georgina Carolina Y. Martinez	1,000 - Indirect	Filipino	0%
Common Stock	Jose Bayani D. Baylon	59,200 - Indirect	Filipino	0%
Common Stock	Rolando R. Cruz	1,106,914 - Direct 594,000 - Indirect	Filipino	0.01%
Common Stock	Rommel L. Cruz	-	Filipino	0%
Common Stock	Aloysius C. Diaz	108,000 - Indirect	Filipino	0%
Common Stock	Koichi Ishihara	190,000 - Indirect	Japanese	0%
Common Stock	Michio Iwai	14,189,166 - Indirect	Japanese	0.1%
Common Stock	Gerardo Ignacio B. Ongkingco	-	Filipino	0%
Common Stock	Maria Angela G. Villamor	972,554 - Indirect	Filipino	0%
Common Stock	Romeo T. Tanalgo	-	Filipino	0%
Common Stock	Rogel C. Cabauatan	289,220 – Indirect	Filipino	0%
Common Stock	Jeffrey B. Escoto	-	Filipino	0%
Common Stock	Marnelle A. Jalandoon	-	Filipino	0%
Common Stock	Ryan Rene C. Jornada	662,500 - Indirect	Filipino	0%
Common Stock	Iryan Jean U. Padillo	4,500 – Indirect	Filipino	0%
Common Stock	Barbara Anne C. Migallos	-	Filipino	0%

C. VOTING TRUST HOLDERS OF 5% OR MORE

There is no voting trust holder of 5% or more of the Company's stock.

D. CHANGES IN CONTROL

There are no arrangements which may result in a change in control of the Company.

Item 12. CERTAIN RELATIONSHIP AND RELATED TRANSACTIONS

Related party relationships exist when one party has the ability to control, directly or indirectly through one or more intermediaries, the other party, or exercise significant influence over the other party in making financial and operating decisions. Such relationships also exist between and/or among entities which are under common control with the reporting enterprise, or between and/or among the reporting enterprise and their key management personnel, directors, or its stockholders.

All sales and purchases from related parties are made at prevailing market prices.

Nickel Ore Sale Agreements with PAMCO
The Group supplies saprolite ore to PAMCO. PAMCO is a stockholder of the Parent Company, RTN and TMC. All sales made to PAMCO are transacted at prevailing market prices. Under the terms of the agreement, the base price of the ore products for a specific shipment shall be based on LME. Effective April 2014, ore sales to PAMCO are benchmarked to China prices on the basis of a negotiated price per WMT of ore. PAMCO shall pay the Group 80% to 90% of the provisional invoice amount upon receipt of the required documents and pay the final payment of each shipment after the final dry weight and applicable assay have been determined.

Nickel Ore Sale Agreement with PAMCO and Sojitz Corporation (Sojitz)
RTN supplies saprolite ore to PAMCO under a sale agreement, which shall continue to be valid and in effect until December 2020, wherein PAMCO appointed Sojitz as agent. PAMCO owns 36% and Sojitz owns 4% of the outstanding shares in the capital stock of RTN.

Nickel Ore Supply Agreement with Mitsubishi Corporation RTM International Pte., Ltd. and Mitsubishi Corporation RTM Japan Ltd. (Mitsubishi)
RTN, TMC and HMC entered into an agreement with Mitsubishi's Singapore and Japan-based corporations covering the sale of its ore products. Under the terms of the agreement, the ore sales are benchmarked to China prices on the basis of a negotiated price per WMT of ore. Mitsubishi shall pay 85% of the provisional invoice amount upon receipt of the required documents and pay the final payment of each shipment after the final dry weight and applicable assay have been determined. Under the agreement, the end user of the material is PAMCO.

Nickel Ore Supply Agreement with CBNC
RTN entered into an agreement with CBNC to supply all of the limonite ore requirements for the Coral Bay Hydro Metallurgical Processing Plant (HPP) facility until the earlier of the cessation of operations at the Coral Bay HPP facility and exhaustion of the limonite ore reserves at the Rio Tuba mine. RTN has also entered into an agreement with CBNC to supply limestone and provide ancillary services to the Coral Bay HPAL facility. CBNC is the owner of the Coral Bay HPP facility.

Nickel Ore Supply Agreement with THNC
TMC entered into an agreement with THNC covering the sale of its ore products. Under the terms of the agreement, the base price of the ore products for a specific shipment shall be based on LME.

Service Agreements with CBNC
RTN entered into various service agreements with CBNC pertaining to materials handling and others.

Materials Handling Agreement with THNC
On October 7, 2013, TMC and THNC executed an agreement wherein TMC will render services related to the handling, hauling and transport of cargo for THNC. THNC shall compensate TMC based on the prices stipulated in the agreement which are agreed annually and determined on the basis of the weight of the cargo. Payment is collected within fifteen (15) days from receipt of TMC's billing.

Materials Supply Agreement with THNC
On October 1, 2019, TMC and THNC entered into a materials supply agreement wherein THNC agrees to purchase and take delivery from TMC an aggregate of 1,000,000 compacted cubic meters of suitable and unsuitable construction materials for THNC's expansion of its tailing storage facility. The contract period is from September 1, 2019 to December 31, 2020.

Funding Commitment with THNC
TMC as owner/developer of Taganito Special Economic Zone (TSEZ) incurred a long-term debt to finance the construction of the pier facilities that will be utilized to support the operations of the Taganito HPAL facility. These projects included the jetty, dolphins, rubber fender, jetty bollard and other pier facilities in the Taganito foreshore and offshore areas.

THNC Stockholder's Agreement
On September 15, 2010, NAC, SMM and Mitsui executed a Stockholders Agreement, pursuant to which the parties formed a joint venture company, THNC, to build and operate a plant in Barangay Taganito, Claver, Surigao del Norte for the purpose of producing and selling nickel-cobalt mixed sulfide to be used in the production of electrolytic nickel and electrolytic cobalt.

Pursuant to the Stockholders Agreement, SMM granted THNC a non-exclusive license of technology owned by SMM to produce the products and has undertaken to provide technical assistance to THNC. The Parent Company has undertaken to cause TMC to supply THNC with nickel ore and limestone and to further cause TMC to make available to THNC the use of the land and infrastructure necessary for the production of the products while Mitsui shall assist THNC in procuring materials and equipment necessary for the mine's operations. The Stockholders Agreement shall terminate upon the dissolution of THNC.

The Parent Company, along with the other stockholders of THNC, also agreed to make loans to THNC or guarantee the repayment of THNC's loan obligations in accordance with the financial requirements of THNC, in proportion to their shareholding ratio in THNC.

In a separate agreement dated December 9, 2011, SMM agreed to assume Parent Company's obligation to make loans to, or guarantee the repayment of THNC's loan obligations. The Parent Company, in consideration for this agreement, pays SMM an annual guarantee fee of 1% of THNC's outstanding loan obligations.

Throughput Agreements

THNC

On October 4, 2010, TMC and THNC executed a Throughput Agreement wherein TMC will construct the pier facilities within the TSEZ pursuant to its role as Developer. The TSEZ is located within the Surigao Mineral Reservation, an area declared for mineral development pursuant to Proclamation 391, under the supervision of the DENR that issued an "Order to Use Offshore Area" dated September 20, 2010 to TMC for the use of such portion of the Surigao Mineral Reservation for the construction of the pier facilities. In relation to this, THNC entered into a Registration Agreement with the PEZA to construct and operate a mineral processing plant within the TSEZ as an Ecozone Export Enterprise.

Under the agreement, TMC will make available the pier facilities and provide certain services to THNC in consideration for usage fees and service fees to be paid by the latter starting April 2011 until 2031, unless terminated earlier. The usage fee amounted to $1.3 million for each semi-annual period to be paid on or before October 10 and April 10 of each year.

THNC also agrees to pay service fee that will be agreed upon by both parties which shall be billed on a monthly basis.

Prior to the commencement date, THNC may also request TMC to use any part of the constructed pier facilities, which is ready for use, upon payment of reasonable compensation which shall be mutually agreed by TMC and THNC.

CBNC

Under the agreement, CBNC shall pay RTN the price which consists of all its direct costs for the pier facilities which includes but not limited to, financial costs, maintenance costs and tax as well as indirect costs directly used for the pier facilities and the services as agreed by the parties. CBNC shall pay to RTN in U.S. dollar, as a part of such financial costs, the amounts to be paid by RTN to SMM such as interests and loan repayments pursuant to the Omnibus Agreement made and entered into by and between RTN and SMM. The agreement shall continue for twenty-five (25) years after November 25, 2002 unless terminated earlier.

Memorandum of Understanding

On September 14, 2009, the Parent Company and TMC entered into a MOU with SMM. Pursuant to the terms thereof, the Parent Company and SMM will move ahead on a joint venture basis to build a nickel-cobalt processing plant (the Project) using the HPAL technology to be located within the TMC's mine in Surigao del Norte, while TMC will supply low-grade nickel ore to the plant over the life of the Project. The cost of the Project was estimated at US$1,420.0 million. The plant will have an annual capacity of 51,000 dry metric tons of mixed nickel-cobalt sulfide over an estimated thirty (30) year project life. The MOU provides that the equity share of the Parent Company and SMM shall be between 20%-25% and 75%-80%, respectively.

Subsequently, the Parent Company, SMM and Mitsui entered into the THNC Stockholders' Agreement on September 15, 2010, which contract provides that the Project will be undertaken by THNC, a company that will be jointly owned by the Parent Company, SMM and Mitsui with equity interest of 22.5%, 62.5% and 15.0%, respectively. Pursuant to the THNC Stockholders' Agreement, SMM granted THNC a non-exclusive license of technology owned by SMM to produce the products and agreed to provide technical assistance to THNC. The Company undertook to cause TMC to supply THNC with nickel ore and limestone and to further cause TMC to make available to THNC the use of the land and infrastructure necessary for the production of the products. Mitsui for its part agreed assist THNC in procuring materials and equipment necessary for the plant's operations.

In October 2016, pursuant to the sale by the Parent Company of its 12.5% equity interest in THNC to SMM, the shareholding ratio of the Parent Company and SMM became 10% and 75%, respectively.

The THNC Stockholders' Agreement also sets forth the respective rights and obligations of the Parent Company, SMM and Mitsui, including their responsibilities in respect of financing the US$1,420.0 million Project investment of THNC, which cost increased to US$1,590.0 million over the three (3)-year construction period which commenced in the last quarter of 2010.

Also, under the THNC Stockholders' Agreement, the Parent Company, SMM and Mitsui agreed to grant loans to THNC or guarantee the repayment of THNC's obligations in accordance with the financial requirements of THNC and in proportion to their shareholding ratio in THNC.

The THNC Agreement shall terminate upon the dissolution of THNC.

Loan Guarantee/Substitution Agreement
Under a loan guarantee/substitution agreement dated December 9, 2011 between the Parent Company and SMM, the latter agreed to substitute for the Parent Company in extending loans or guaranteeing the repayment of THNC pursuant to the THNC Stockholders' Agreement.

In consideration of the loans and guarantee made by SMM in substitution of the Parent Company, the latter agreed to pay SMM an annual fee equal to 1% of the relevant outstanding amount, which is payable every February 21 and August 21 of each year.

On January 26, 2015, December 18 and December 3, 2013, the Parent Company and SMM entered into another loan guarantee/substitution agreement with respect to the new loan agreements made and entered by THNC and SMM on August 4, 2014, December 3 and January 31, 2013, respectively. The annual fee is also equal to 1% of the relevant outstanding amount, which is payable every March 21 and September 21 of each year.

In case of default by the Parent Company, such loan guarantee/substitution agreements will be terminated and the Parent Company shall provide loans to THNC or guarantee the repayment of THNC's loans payable. Failure to provide such loans or guarantee shall be considered a default under the THNC Stockholders' Agreement.

Lease Agreement with THNC
On October 31, 2013, TMC and THNC executed a lease agreement wherein TMC will lease the land within the TSEZ to the lessee. The TSEZ leased area of approximately 675 hectares is located at Barangays Taganito and Hayanggabon, Claver, Surigao del Norte. The duration of the lease agreement shall be for a period of twenty (20) years starting January 1, 2013; however, the rental rate shall be annually agreed upon by both parties.

Loan Agreements
THNC
On October 4, 2010, TMC entered into an Omnibus Agreement with THNC, wherein the latter granted the former a total loan facility amounting to US$35.0 million at a prevailing one hundred eighty (180)-day British Banker Association London Inter-Bank Offered Rate (LIBOR) plus 2% spread, to exclusively finance the construction of the pier facilities within the TSEZ. The loan shall be drawn down in one or multiple times by July 31, 2011.

The interest on the loan is payable semi-annually, on October 10 and April 10. The total principal is payable in semi-annual installments of US$0.9 million starting on October 10, 2011 up to April 10, 2031.

Lease Agreement with Manta

On March 18, 2013, the Group entered into a lease agreement with Manta for its office and parking space. The lease agreement is effective for a period of five (5) years starting May 15, 2013 and is renewable subject to negotiation of the terms and conditions and mutual agreement of both parties.

The lease agreement expired in May 2018 and was renewed for another period of five (5) years.

Notes 34 and 40 of the Notes to Consolidated Financial Statements of the Exhibits in Part IV is incorporated hereto by reference.

PART IV – EXHIBITS AND SCHEDULES

Item 13. EXHIBITS AND REPORTS ON SEC FORM 17-C

Exhibits
See accompanying Index to Exhibits as well as the Company's Audited Financial Statements for the recently completed fiscal year. These financial statements are reports from the Corporation's Independent Public Accountant, SGV & Co.

Reports on SEC Form 17-C
The Parent Company filed the following reports on SEC Form 17-C during the year 2019.

Items Reported	Date Reported
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 940,000 common shares at the average price of Php2.3793 per share on January 10, 2019	January 10, 2019
Press Release: NIKL's estimated value of shipments rises 20% in 2018	January 17, 2019
Press Release: Nickel Asia Corporation announces 2018 financial and operating results	March 14, 2019
Declaration of cash dividends at Php0.07 per common share to stockholders of record as of March 28, 2019; payable on April 12, 2019.	March 14, 2019
Notice of annual shareholders meeting	March 14, 2019
Clarification on the news report posted on Business World Online: "Nickel Asia says 2019 ore sales steady"	March 20, 2019
Annual Stockholders' Meeting for 2019	April 1, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 172,000 common shares at the average price of Php2.4000 per share on April 16, 2019	April 17, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 115,000 common shares at the average price of Php2.4000 per share on April 22, 2019	April 23, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 100,000 common shares at the average price of Php2.4000 per share on April 29, 2019	April 30, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 240,000 common shares at the average price of Php2.3985 per share on May 2, 2019	May 3, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 269,000 common shares at the average price of Php2.3900 per share on May 6, 2019	May 7, 2019
Change in designation of officers: Augusto C. Villaluna from Vice President to Vice President - Special Projects and Georgina Carolina Y. Martinez from Vice President - Legal and Special Projects to Vice President - Legal	May 7, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 210,000 common shares at the average price of Php2.3977 per share on May 7, 2019	May 8, 2019
Disclosure due to fines imposed by the Board of Investment on Dinapigue Mining Corporation (DMC), a wholly-owned subsidiary of Nickel Asia Corporation.	May 10, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 547,000 common shares at the average price of Php2.3163 per share on May 10, 2019	May 14, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 1,400,000 common shares at the average price of Php2.2447 per share on May 14, 2019	May 15, 2019

Items Reported	Date Reported
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 164,000 common shares at the average price of Php2.2000 per share on May 16, 2019	May 17, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 62,000 common shares at the average price of Php2.1781 per share on May 17, 2019	May 20, 2019
Results of the Annual General Meeting of the Stockholders of Nickel Asia Corporation held on May 20, 2019	May 20, 2019
Results of the Organizational Meeting of the Board of Directors of Nickel Asia Corporation held on May 20, 2019	May 20, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 160,000 common shares at the average price of Php2.15 per share on May 24, 2019	May 27, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 335,000 common shares at the average price of Php2.1431 per share on May 29, 2019	May 30, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 566,000 common shares at the average price of Php2.1124 per share on June 17, 2019	June 18, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 200,000 common shares at the average price of Php2.12 per share on June 18, 2019	June 19, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 205,000 common shares at the average price of Php2.11 per share on June 19, 2019	June 20, 2019
Nickel Asia Corporation announces financial and operating results with earnings of Php714 Million for the six months ended June 30, 2019	August 6, 2019
Appointment of Officers: Gen. (Ret.) Romeo T. Tanalgo - Vice President for Security and Jeffrey B. Escoto - Assistant Vice President for Technical Services	August 6, 2019
Approval of the Policy and System Governing Related Party Transactions	August 6, 2019
Change in the phone and fax numbers	October 7, 2019
Reply to the Philippine Stock Exchange’s request for confirmation and/or clarification regarding the forecast for Cagdianao Mining Corporation for Q4 2019 and year 2020	October 8, 2019
Amendment of Articles II, III, and IV of the Corporation's By-Laws to include additional corporate officers and to include modifications in the functions of the corporate officers.	October 16, 2019
NIKL 9M-2019 Financial and Operating Results	November 8, 2019
Change in designation, retirement, and appointment of NIKL Officers	November 8, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 3,099,000 common shares at the average price of Php2.9909 per share on December 3, 2019	December 4, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 7,241,000 common shares at the average price of Php2.8829 per share on December 2, 2019	December 4, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 4,950,000 common shares at the average price of Php2.8997 per share on December 4, 2019	December 5, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 700,000 common shares at the average price of Php2.9270 per share on December 5, 2019	December 6, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 1,150,000 common shares at the average price of Php2.9891 per share on December 9, 2019	December 10, 2019

Items Reported	Date Reported
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 595,000 common shares at the average price of Php2.9295 per share on December 10, 2019	December 11, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 73,000 common shares at the average price of Php2.92 per share on December 11, 2019	December 12, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 406,000 common shares at the average price of Php2.90 per share on December 12, 2019	December 13, 2019
NIKL Share Buy-Back Transactions: Purchase by the Company through the open market a total of 478,000 common shares at the average price of Php2.8837 per share on December 17, 2019	December 18, 2019

SIGNATURES

Pursuant to the requirements of Section 17 of the Code and Section 141 of the Corporation Code, this report is signed on behalf of the Issuer by the undersigned, thereunto duly authorized, in the City of Taguig on __________________, 2020.

By:

MARTIN ANTONIO G. ZAMORA
President and Chief Executive Officer

EMMANUEL L. SAMSON
Senior Vice President and
Chief Financial Officer

JOSE B. ANIEVAS
Senior Vice President and
Chief Operating Officer

BARBARA ANNE C. MIGALLOS
Corporate Secretary

IRYAN JEAN U. PADILLO
Assistant Vice President - Finance

Subscribed and sworn to before me this _________ day of __________, 2020 affiant (s) exhibiting to me his/their Passport Number, as follows:

Names	Passport No.	Date of Issue	Place of Issue
Martin Antonio G. Zamora	EC6060964	11/24/2015	Manila
Emmanuel L. Samson	P2955746A	05/10/2017	Manila
Jose B. Anievas	P4396681A	09/16/2017	Manila
Barbara Anne C. Migallos	P7148981A	05/11/2018	NCR South
Iryan Jean U. Padillo	P2919448B	08/31/2019	NCR Central

NICKEL ASIA CORPORATION
SEC FORM 17-A
INDEX TO FINANCIAL STATEMENTS AND SUPPLEMENTARY SCHEDULES

NICKEL ASIA CORP.

STATEMENT OF MANAGEMENT'S RESPONSIBILITY FOR CONSOLIDATED FINANCIAL STATEMENTS

The management of **Nickel Asia Corporation and Subsidiaries** ("the Group") is responsible for the preparation and fair presentation of the consolidated financial statements, including the schedules attached therein, for the years ended **December 31, 2019 and 2018**, in accordance with the prescribed financial reporting framework indicated therein, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using going concern basis of accounting unless management either intends to liquidate the Group or the cease operations, or has no realistic alternative but to do so.

The Board of Directors is responsible for overseeing the Group's financial reporting process.

The Board of Directors reviews and approves the consolidated financial statements including the schedules attached therein, and submits the same to the stockholders.

SGV & Co., the independent auditors, appointed by the stockholders, has audited the consolidated financial statements of the Group in accordance with Philippine Standards on Auditing, and in its report to the stockholders, has expressed its opinion on the fairness of presentation upon completion of such audit.

GERARD H. BRIMO
Chairman of the Board

MARTIN ANTONIO G. ZAMORA
President and Chief Executive Officer

EMMANUEL L. SAMSON
Chief Financial Officer

Signed this 13th day of March 2020.

SyCip Gorres Velayo & Co.
6760 Ayala Avenue
1226 Makati City
Philippines

Tel: (632) 891 0307
Fax: (632) 819 0872
ey.com/ph

BOA/PRC Reg. No. 0001,
October 4, 2018, valid until August 24, 2021
SEC Accreditation No. 0012-FR-5 (Group A),
November 6, 2018, valid until November 5, 2021

INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders
Nickel Asia Corporation
28th Floor NAC Tower, 32nd Street
Bonifacio Global City, Taguig City

Opinion

We have audited the consolidated financial statements of Nickel Asia Corporation and its subsidiaries (the Group), which comprise the consolidated statements of financial position as at December 31, 2019 and 2018, and the consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for each of the three years in the period ended December 31, 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2019 and 2018 and its consolidated financial performance and its consolidated cash flows for each of the three years in the period ended December 31, 2019 in accordance with Philippine Financial Reporting Standards (PFRSs).

Basis for Opinion

We conducted our audits in accordance with Philippine Standards on Auditing (PSAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the Code of Ethics for Professional Accountants in the Philippines (Code of Ethics) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Philippines, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report, including in relation to these matters.

Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Recoverability of geothermal exploration and evaluation assets and deferred mine exploration costs

The ability of the Group to recover its geothermal exploration and evaluation assets and deferred mine exploration costs would depend on the commercial viability of the reserves. The substantial amount of these accounts and the significant management judgment required in assessing whether there is any indication of impairment are key areas of focus in our audit.

The carrying values of geothermal exploration and evaluation assets and deferred mine exploration costs as of December 31, 2019 are disclosed in Note 11 and 13 to the consolidated financial statements.

Audit response
We obtained an understanding of the Group's capitalization policy and tested whether the policy has been applied consistently. We obtained management's assessment on whether there are impairment indicators affecting the recoverability of the geothermal exploration and evaluation assets and deferred mine exploration costs. We inquired into the status of these projects and their plans on operations. We reviewed contracts and agreements, and budgets for exploration and development costs. We inspected the licenses, permits and correspondences with regulatory agencies of each exploration project, to determine that the period for which the Group has the right to explore in the specific area, has not been cancelled or has not expired, will not expire in the near future, and will be renewed accordingly. We also inquired about the existing concession areas that are expected to be abandoned or any exploration activities that are planned to be discontinued in those areas.

Recoverability of solar project and construction in-progress

The Group is adversely affected by the continued decline in wholesale electricity prices. In the event that an impairment indicator is identified, the assessment of the recoverable amounts of the solar project and construction in-progress related to solar farms and geothermal projects, requires significant judgment and is based on assumptions. The assessment of the recoverable amounts of the Sta. Rita Solar Power and the Biliran Geothermal Power Projects, which require estimation and assumptions about future production levels and costs, as well as external inputs such as commodity prices, discount rate, and foreign currency exchange rates, is a key audit matter in our audit.

The carrying values of the Group's solar project and construction in-progress recorded as part of property and equipment as of December 31, 2019 are disclosed in Note 9 to the consolidated financial statements.

Audit response
We involved our internal specialist in evaluating the methodologies and the assumptions used in determining the recoverable amounts. We reviewed the reasonableness of these assumptions, such as the expected life of the plant, forecasted annual energy output, forecasted average price of wholesale electricity, forecasted contributions to the government based on current regulations, inflation rate, planned debt ratio, and interest rate. We compared the key assumptions used against the industry benchmark plant life, production reports from operations department, average market price of electricity on Wholesale Electric Spot Market (WESM), current tax laws and Department of Energy regulations, Bangko Sentral ng Pilipinas (BSP) forecasted inflation rate, industry debt ratio and discount rate based on industry weighted average capital cost. We tested the parameters used in the determination of the discount rate against the market data.

Adoption of PFRS 16, Leases

Effective January 1, 2019, the Group adopted PFRS 16, *Leases*, under the modified retrospective approach which resulted in significant changes in the Group's accounting policy for leases. The Group's adoption of PFRS 16 is significant to our audit because the recorded amounts are material to the consolidated financial statements and the adoption involves application of significant judgment and estimation in determining the lease term, including evaluating whether the Group is reasonably certain to extend or terminate the lease, and in determining the incremental borrowing rate. This resulted to the recognition of right-of-use assets and lease liabilities amounting to ₱635.3 million and ₱639.9 million, respectively, as of January 1, 2019, and the recognition of depreciation expense and interest expense of ₱39.1 million and ₱55.3 million, respectively, for the year ended December 31, 2019.

The Group's disclosures related to the adoption of PFRS 16 are included in Note 2 to the consolidated financial statements.

Audit Response
We obtained an understanding of the Group's process in implementing the new standard on leases, including the determination of the population of the lease contracts covered by PFRS 16, the application of the short-term and low value assets exemption, the selection of the transition approach and any election of available practical expedients.

On a test basis, we inspected lease agreements (i.e., lease agreements existing prior to the adoption of PFRS 16 and new lease agreements), identified their contractual terms and conditions, and traced these contractual terms and conditions to the lease calculation prepared by management, which covers the calculation of financial impact of PFRS 16, including the transition adjustments.

We tested the parameters used in the determination of the incremental borrowing rate by reference to market data. We test computed the lease calculation prepared by management on a sample basis, including the transition adjustments.

We reviewed the disclosures related to the transition adjustments based on the requirements of PFRS 16 and PAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*.

Other Information

Management is responsible for the other information. The other information comprises the information included in the SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2018 but does not include the consolidated financial statements and our auditor's report thereon. The SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2019 are expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits, or otherwise appears to be materially misstated.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with PFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with PSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with PSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Jaime F. del Rosario.

SYCIP GORRES VELAYO & CO.

Jaime F. del Rosario
Partner
CPA Certificate No. 56915
SEC Accreditation No. 0076-AR-5 (Group A),
April 30, 2019, valid until April 29, 2022
Tax Identification No. 102-096-009
BIR Accreditation No. 08-001998-72-2018,
February 14, 2018, valid until February 13, 2021
PTR No. 8125228, January 7, 2020, Makati City

March 13, 2020

NICKEL ASIA CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(Amounts in Thousands)

	December 31	
	2019	2018
ASSETS		
Current Assets		
Cash and cash equivalents (Note 4)	**₱11,943,128**	₱10,784,369
Trade and other receivables (Note 5)	**1,065,657**	1,056,568
Inventories (Note 6)	**3,995,411**	3,744,274
Financial assets at (Note 7):		
Fair value through other comprehensive income (FVOCI)	**2,730,168**	2,608,301
Fair value through profit or loss (FVTPL)	**1,651,283**	1,420,718
Amortized cost	**244,217**	201,770
Prepayments and other current assets (Note 8)	**393,393**	1,164,750
Total Current Assets	**22,023,257**	20,980,750
Noncurrent Assets		
Property and equipment (Note 9)	**16,028,192**	15,078,220
Investments in associates (Note 10)	**3,259,735**	3,540,589
Geothermal exploration and evaluation assets (Note 11)	**1,811,711**	1,793,444
Financial assets at - net of current portion (Note 7):		
FVTPL	**851,266**	585,928
Amortized cost	**210,000**	330,000
Deferred income tax assets (Note 37)	**498,264**	335,951
Long-term stockpile inventory - net of current portion (Note 12)	**105,601**	105,601
Other noncurrent assets (Note 13)	**3,473,927**	3,282,024
Total Noncurrent Assets	**26,238,696**	25,051,757
TOTAL ASSETS	**₱48,261,953**	₱46,032,507
LIABILITIES AND EQUITY		
Current Liabilities		
Trade and other payables (Note 14)	**₱7,530,858**	₱7,612,984
Short-term debts (Note 15)	**1,492,404**	1,492,268
Income tax payable	**557,388**	415,789
Other current liability (Note 40k)	**221,079**	221,079
Current portion of:		
Long-term debts (Note 15)	**88,611**	118,970
Lease liabilities (Note 35)	**25,141**	–
Long-term payable (Note 17)	**5,000**	5,000
Total Current Liabilities	**9,920,481**	9,866,090
Noncurrent Liabilities		
Long-term debts - net of current portion (Note 15)	**930,418**	1,288,562
Deferred income tax liabilities - net (Note 37)	**748,766**	754,101
Lease liabilities - net of current portion (Note 35)	**581,537**	–
Provision for mine rehabilitation and decommissioning (Note 16)	**493,731**	274,227
Pension liability (Note 36)	**393,180**	327,905
Deferred income - net of current portion (Note 40m)	**50,279**	54,469
Long-term payable - net of current portion (Note 17)	**12,300**	16,323
Total Noncurrent Liabilities	**3,210,211**	2,715,587
Total Liabilities	**13,130,692**	12,581,677

(Forward)

	December 31	
	2019	2018
Equity Attributable to Equity Holders of the Parent		
Capital stock (Note 18)	**₱6,849,836**	₱6,849,836
Additional paid-in capital	**8,262,455**	8,262,455
Other components of equity:		
Share in cumulative translation adjustment (Note 10)	**612,635**	780,412
Cost of share-based payment plan (Note 19)	**370,522**	240,003
Net valuation gains (losses) on financial assets at FVOCI (Note 7)	**32,243**	(92,504)
Asset revaluation surplus	**31,331**	31,714
Retained earnings:		
Unappropriated	**13,713,383**	11,794,529
Appropriated (Note 18)	**1,585,576**	1,818,628
Treasury stock (Note 18)	**(87,950)**	(20,366)
	31,370,031	29,664,707
Non-controlling Interests (NCI)	**3,761,230**	3,786,123
Total Equity	**35,131,261**	33,450,830
TOTAL LIABILITIES AND EQUITY	**₱48,261,953**	₱46,032,507

See accompanying Notes to Consolidated Financial Statements.

NICKEL ASIA CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME

(Amounts in Thousands, Except Earnings per Share)

	Years Ended December 31		
	2019	2018	2017
REVENUES			
Sale of ore and limestone (Notes 32 and 34)	**₱16,669,736**	₱17,741,560	₱14,897,080
Services and others (Notes 32, 34 and 40g)	**973,256**	650,095	630,064
Sale of power (Notes 32, 34, 40g and 40p)	**280,302**	256,017	212,152
	17,923,294	18,647,672	15,739,296
COSTS			
Cost of sales (Note 21)	**7,105,870**	6,770,953	6,033,241
Power generation (Note 22)	**377,467**	360,622	257,276
Services (Note 23)	**331,819**	318,258	308,694
	7,815,156	7,449,833	6,599,211
OPERATING EXPENSES			
Excise taxes and royalties (Note 24)	**1,787,323**	1,804,029	1,103,686
Shipping and loading costs (Note 25)	**1,767,016**	1,949,489	1,769,110
General and administrative (Note 26)	**1,155,984**	1,213,041	863,153
Marketing (Notes 40e and 40l)	**157,031**	140,210	96,464
	4,867,354	5,106,769	3,832,413
FINANCE INCOME (Note 29)	**405,598**	354,803	301,967
FINANCE EXPENSES (Note 30)	**(343,655)**	(245,625)	(289,260)
EQUITY IN NET INCOME OF ASSOCIATES (Note 10)	**10,383**	348,168	197,972
OTHER INCOME (CHARGES) - net (Note 31)	**168,824**	(217,001)	72,649
INCOME BEFORE INCOME TAX	**5,481,934**	6,331,415	5,591,000
PROVISION FOR (BENEFIT FROM) INCOME TAX (Note 37)			
Current	**1,790,581**	2,173,934	1,865,318
Deferred	**(135,075)**	(65,459)	(128,462)
	1,655,506	2,108,475	1,736,856
NET INCOME	**₱3,826,428**	₱4,222,940	₱3,854,144
Net income attributable to:			
Equity holders of the parent	**₱2,684,969**	₱3,008,057	₱2,770,768
NCI	**1,141,459**	1,214,883	1,083,376
	₱3,826,428	₱4,222,940	₱3,854,144
Basic/Diluted Earnings Per Share (EPS; Note 20)	**₱0.20**	₱0.22	₱0.20

See accompanying Notes to Consolidated Financial Statements.

NICKEL ASIA CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Amounts in Thousands)

	Years Ended December 31		
	2019	2018	2017
NET INCOME	**₱3,826,428**	₱4,222,940	₱3,854,144
OTHER COMPREHENSIVE INCOME (LOSS)			
Other comprehensive income (loss) to be reclassified to consolidated statements of income in subsequent periods:			
Share in translation adjustment of associates (Note 10)	**(186,419)**	240,289	172,073
Income tax effect	**18,642**	(24,029)	(17,207)
	(167,777)	216,260	154,866
Net valuation gains (losses) on financial assets (Note 7)	**133,932**	(52,241)	194,243
Income tax effect (Note 7)	**(9,185)**	2,542	(41,132)
	124,747	(49,699)	153,111
Net other comprehensive income (loss) to be reclassified to consolidated statements of income in subsequent periods	**(43,030)**	166,561	307,977
Other comprehensive income (loss) not to be reclassified to consolidated statements of income in subsequent periods:			
Remeasurement gain (loss) on pension liability (Note 36)	**(77,048)**	13,553	(8,373)
Income tax effect	**23,114**	(4,066)	2,512
	(53,934)	9,487	(5,861)
Asset revaluation surplus	**(547)**	(547)	(547)
Income tax effect	**164**	164	164
	(383)	(383)	(383)
Net other comprehensive income (loss) not to be reclassified to consolidated statements of income in subsequent periods	**(54,317)**	9,104	(6,244)
TOTAL OTHER COMPREHENSIVE INCOME (LOSS) - NET OF TAX	**(97,347)**	175,665	301,733
TOTAL COMPREHENSIVE INCOME - NET OF TAX	**₱3,729,081**	₱4,398,605	₱4,155,877
Total comprehensive income attributable to:			
Equity holders of the parent	**₱2,599,758**	₱3,186,229	₱3,071,379
NCI	**1,129,323**	1,212,376	1,084,498
	₱3,729,081	₱4,398,605	₱4,155,877

See accompanying Notes to Consolidated Financial Statements.

NICKEL ASIA CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017

(Amounts in Thousands)

	Equity Attributable to Equity Holders of the Parent											
							Retained Earnings					
	Capital Stock (Note 18)	Additional Paid-in Capital	Share in Cumulative Translation Adjustment (Note 10)	Cost of Share-based Payment Plan (Note 19)	Net Valuation Gains (Losses) on Financial Assets at FVOCI (Note 7)	Asset Revaluation Surplus	Unappropriated	Appropriated (Note 18)	Treasury Stock (Note 18)	Total	NCI	Total
Balances at December 31, 2018	**₱6,849,836**	**₱8,262,455**	**₱780,412**	**₱240,003**	**(₱92,504)**	**₱31,714**	**₱11,794,529**	**₱1,818,628**	**(₱20,366)**	**₱29,664,707**	**₱3,786,123**	**₱33,450,830**
Net income	–	–	–	–	–	–	**2,684,969**	–	–	**2,684,969**	**1,141,459**	**3,826,428**
Other comprehensive income (loss)	–	–	**(167,777)**	–	**124,747**	**(383)**	**(41,798)**	–	–	**(85,211)**	**(12,136)**	**(97,347)**
Total comprehensive income (loss)	–	–	**(167,777)**	–	**124,747**	**(383)**	**2,643,171**	–	–	**2,599,758**	**1,129,323**	**3,729,081**
Cost of share-based payment plan (Notes 19 and 27)	–	–	–	**130,519**	–	–	–	–	–	**130,519**	–	**130,519**
Cash dividends (Note 18)	–	–	–	–	–	–	**(957,248)**	–	–	**(957,248)**	–	**(957,248)**
7% Cash dividends - Preferred share (Note 34)	–	–	–	–	–	–	**(504)**	–	–	**(504)**	–	**(504)**
Cash dividends to NCI (Notes 33 and 34)	–	–	–	–	–	–	–	–	–	–	**(1,155,000)**	**(1,155,000)**
Elimination of NCI at disposal of subsidiaries	–	–	–	–	–	–	–	–	–	–	**784**	**784**
Acquisition of treasury stock (Note 18)	–	–	–	–	–	–	–	–	**(67,584)**	**(67,584)**	–	**(67,584)**
Reversal of appropriation (Note 18)	–	–	–	–	–	–	**318,628**	**(318,628)**	–	–	–	–
Appropriation of retained earnings (Note 18)	–	–	–	–	–	–	**(85,576)**	**85,576**	–	–	–	–
Asset revaluation surplus transferred to retained earnings (Note 9)	–	–	–	–	–	–	**383**	–	–	**383**	–	**383**
Balances at December 31, 2019	**₱6,849,836**	**₱8,262,455**	**₱612,635**	**₱370,522**	**₱32,243**	**₱31,331**	**₱13,713,383**	**₱1,585,576**	**(₱87,950)**	**₱31,370,031**	**₱3,761,230**	**₱35,131,261**

See accompanying Notes to Consolidated Financial Statements.

	Equity Attributable to Equity Holders of the Parent											
							Retained Earnings					
	Capital Stock (Note 18)	Additional Paid-in Capital	Share in Cumulative Translation Adjustment (Note 10)	Cost of Share-based Payment Plan (Note 19)	Net Valuation Gains (Losses) on Financial Assets at FVOCI (Note 7)	Asset Revaluation Surplus	Unappropriated	Appropriated (Note 18)	Treasury Stock (Note 18)	Total	NCI	Total
Balances at January 1, 2018	₱3,808,665	₱8,262,455	₱564,152	₱137,635	(₱42,805)	₱32,097	₱15,732,045	₱1,095,583	₱–	₱29,589,827	₱3,828,747	₱33,418,574
Net income	–	–	–	–	–	–	3,008,057	–	–	3,008,057	1,214,883	4,222,940
Other comprehensive income (loss)	–	–	216,260	–	(49,699)	(383)	11,994	–	–	178,172	(2,507)	175,665
Total comprehensive income (loss)	–	–	216,260	–	(49,699)	(383)	3,020,051	–	–	3,186,229	1,212,376	4,398,605
Cost of share-based payment plan (Notes 19 and 27)	–	–	–	102,368	–	–	–	–	–	102,368	–	102,368
Stock dividends (Note 18)	3,041,171	–	–	–	–	–	(3,041,171)	–	–	–	–	–
Cash dividends (Note 18)	–	–	–	–	–	–	(3,193,230)	–	–	(3,193,230)	–	(3,193,230)
7% Cash dividends - Preferred share (Note 34)	–	–	–	–	–	–	(504)	–	–	(504)	–	(504)
Cash dividends to NCI (Notes 33 and 34)	–	–	–	–	–	–	–	–	–	–	(1,255,000)	(1,255,000)
Acquisition of treasury stock (Note 18)	–	–	–	–	–	–	–	–	(20,366)	(20,366)	–	(20,366)
Reversal of appropriation (Note 18)	–	–	–	–	–	–	1,095,583	(1,095,583)	–	–	–	–
Appropriation of retained earnings (Note 18)	–	–	–	–	–	–	(1,818,628)	1,818,628	–	–	–	–
Asset revaluation surplus transferred to retained earnings (Note 9)	–	–	–	–	–	–	383	–	–	383	–	383
Balances at December 31, 2018	₱6,849,836	₱8,262,455	₱780,412	₱240,003	(₱92,504)	₱31,714	₱11,794,529	₱1,818,628	(₱20,366)	₱29,664,707	₱3,786,123	₱33,450,830

See accompanying Notes to Consolidated Financial Statements.

	Capital Stock	Additional Paid-in Capital	Share in Cumulative Translation Adjustment	Cost of Share-based Payment Plan	Net Valuation Gains on Financial Assets	Asset Revaluation Surplus	Retained Earnings Unappropriated	Retained Earnings Appropriated (Note 18)	Total	NCI	Total
	Equity Attributable to Equity Holders of the Parent										
Balances at December 31, 2016	₱3,808,665	₱8,300,002	₱409,286	₱126,622	₱12,954	₱32,480	₱13,221,526	₱1,108,956	₱27,020,491	₱4,179,162	₱31,199,653
Net income	–	–	–	–	–	–	2,770,768	–	2,770,768	1,083,376	3,854,144
Other comprehensive income (loss)	–	–	154,866	–	150,981	(383)	(4,853)	–	300,611	1,122	301,733
Total comprehensive income (loss)	–	–	154,866	–	150,981	(383)	2,765,915	–	3,071,379	1,084,498	4,155,877
Cost of share-based payment plan (Note 27)	–	–	–	11,013	–	–	–	–	11,013	–	11,013
Cash dividends (Note 18)	–	–	–	–	–	–	(608,234)	–	(608,234)	–	(608,234)
7% Cash dividends - Preferred share (Note 34)	–	–	–	–	–	–	(504)	–	(504)	–	(504)
Cash dividends to NCI (Note 34)	–	–	–	–	–	–	–	–	–	(1,540,000)	(1,540,000)
Reversal of appropriation (Note 18)	–	–	–	–	–	–	108,956	(108,956)	–	–	–
Appropriation of retained earnings (Note 18)	–	–	–	–	–	–	(95,583)	95,583	–	–	–
Dilution in NCI	–	(37,547)	–	–	–	–	–	–	(37,547)	37,547	–
Asset revaluation surplus transferred to retained earnings (Note 9)	–	–	–	–	–	–	383	–	383	–	383
Balances at December 31, 2017	₱3,808,665	₱8,262,455	₱564,152	₱137,635	₱163,935	₱32,097	₱15,392,459	₱1,095,583	₱29,456,981	₱3,761,207	₱33,218,188

See accompanying Notes to Consolidated Financial Statements.

NICKEL ASIA CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in Thousands)

	Years Ended December 31		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Income before income tax	**₱5,481,934**	₱6,331,415	₱5,591,000
Adjustments for:			
Depreciation, amortization and depletion (Notes 9 and 28)	**1,404,365**	1,355,589	1,481,952
Loss (gain) on:			
Changes in fair value of financial assets (Note 31)	**(347,725)**	143,711	–
Write-off of deposit for aircraft acquisition (Note 40q)	**51,105**	–	–
Sale of financial assets at FVOCI (Note 31)	**(19,055)**	49,456	–
Sale of property and equipment (Note 31)	**14,020**	(59,683)	4,508
Sale of investment in subsidiaries	**(881)**	–	–
Sale of financial assets at amortized cost (Note 31)	**(200)**	(2,353)	–
Write-off of investment property (Note 31)	**–**	1,623	–
Sale of available-for-sale (AFS) financial assets (Notes 7 and 31)	**–**	–	(14,336)
Debt extinguishment (see Note 30)	**–**	–	3,433
Exchange of assets (Notes 31 and 40q)	**(39,986)**	–	–
Interest income (Note 29)	**(405,598)**	(354,803)	(301,967)
Interest expense (Note 30)	**208,286**	165,576	201,726
Unrealized foreign exchange losses (gains) - net (Note 31)	**203,048**	(153,705)	9,720
Cost of share-based payment plan (Notes 19 and 27)	**130,519**	102,368	11,013
Accretion of interest on:			
Lease liabilities (Notes 30 and 35)	**55,342**	–	–
Provision for mine rehabilitation and decommissioning (Notes 16 and 30)	**14,738**	13,746	16,123
Long-term payable (Notes 17 and 30)	**977**	1,155	1,322
Dividend income (Notes 7 and 31)	**(45,539)**	(38,849)	(36,967)
Movements in pension liability	**(33,987)**	(5,819)	(36,225)
Equity in net income of associates (Note 10)	**(10,383)**	(348,168)	(197,972)
Provisions (reversals of allowance) for impairment losses on:			
Deferred mine exploration costs (Notes 13 and 31)	**–**	15	1,233
AFS financial assets (Notes 7 and 31)	**–**	–	133,320
Property and equipment (Note 31)	**–**	–	(12,825)
Operating income before working capital changes	**6,660,980**	7,201,274	6,855,058
Decrease (increase) in:			
Trade and other receivables	**105,504**	(76,748)	223,212
Inventories	**(251,137)**	(179,902)	(91,891)
Prepayments and other current assets	**716,985**	(235,047)	61,253
Increase in trade and other payables	**254,248**	112,679	269,000
Net cash generated from operations	**7,486,580**	6,822,256	7,316,632
Income taxes paid	**(1,648,982)**	(1,993,378)	(2,056,887)
Net cash flows from operating activities	**5,837,598**	4,828,878	5,259,745

(Forward)

	Years Ended December 31		
	2019	2018	2017
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of:			
Financial assets at:			
FVOCI	**₱2,233,070**	₱1,700,179	₱–
FVTPL	**1,065,502**	2,007,499	–
Amortized cost	**136,200**	198,401	–
Subsidiaries, net of cash disposed	**51,366**	–	–
Property and equipment	**5,067**	85,052	20,116
AFS financial assets	**–**	–	4,981,173
Acquisitions of:			
Financial assets at (Note 7):			
FVOCI	**(2,247,021)**	(1,489,737)	–
FVTPL	**(1,233,089)**	(786,674)	–
Amortized cost	**(58,447)**	(48,439)	–
Property and equipment (Note 9)	**(1,255,523)**	(1,144,269)	(1,494,458)
AFS financial assets	**–**	–	(5,246,568)
Interest received	**404,381**	354,958	295,365
Issuance of loan (Note 40a)	**(543,824)**	–	–
Increase in:			
Other noncurrent assets	**(262,902)**	(49,223)	(54,119)
Geothermal exploration and evaluation assets (Note 11)	**(18,267)**	(9,261)	(8,384)
Dividends received (Notes 7 and 10)	**150,342**	38,924	36,862
Net cash flows from (used in) investing activities	**(1,573,145)**	857,410	(1,470,013)
CASH FLOWS FROM FINANCING ACTIVITIES			
Payments of:			
Cash dividends (Notes 18 and 34)	**(2,212,752)**	(4,418,734)	(1,801,238)
Short-term debt	**(1,500,000)**	–	(180,000)
Long-term debts	**(334,637)**	(1,625,187)	(1,628,463)
Interest	**(167,256)**	(126,195)	(188,840)
Principal portion of lease liabilities (Note 35)	**(90,273)**	–	–
Long-term payable	**(5,000)**	(5,000)	(5,000)
Proceeds from availment of short-term debts (Note 15)	**1,488,903**	1,488,922	–
Acquisitions of treasury stock	**(67,584)**	(20,366)	–
Increase (decrease) in:			
Other current liability	**–**	24,000	28,000
Deferred income	**(4,190)**	(4,190)	(4,190)
Net cash flows used in financing activities	**(2,892,789)**	(4,686,750)	(3,779,731)
NET INCREASE IN CASH AND CASH EQUIVALENTS	**1,371,664**	999,538	10,001
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	**10,784,369**	9,635,514	9,647,943
EFFECT OF EXCHANGE RATE CHANGES IN CASH AND CASH EQUIVALENTS (Note 31)	**(212,905)**	149,317	(22,430)
CASH AND CASH EQUIVALENTS AT END OF YEAR (Note 4)	**₱11,943,128**	₱10,784,369	₱9,635,514

See accompanying Notes to Consolidated Financial Statements.

1. Corporate Information

Nickel Asia Corporation (NAC; Ultimate Parent Company, Parent Company) was registered with the Philippine Securities and Exchange Commission (SEC) on July 24, 2008. The Parent Company is primarily engaged in investing in and holding of assets of every kind and description and wherever situated, as and to the extent permitted by law. It is also registered, within the limits prescribed by law, to engage in the business of mining of all kinds of ore, metals and minerals and in the business of generation, transmission, distribution and supply of electricity to cities and other localities and to the public in general.

The common shares of the Parent Company were listed on the Philippine Stock Exchange (PSE) on November 22, 2010. The registered office address of the Parent Company is at 28th floor NAC Tower, 32nd Street, Bonifacio Global City, Taguig City.

The Subsidiaries

Hinatuan Mining Corporation (HMC)
HMC was registered with the SEC on October 9, 1979, is a 100% owned subsidiary of the Parent Company and is primarily engaged in the exploration, mining and exporting of nickel ore located in Hinatuan Island, Surigao del Norte and Manicani Island, Eastern Samar. HMC is also engaged in the chartering out of Landing Craft Transport (LCT) and providing complete marine services.

Cagdianao Mining Corporation (CMC)
CMC was registered with the SEC on July 25, 1997, is a 100% owned subsidiary of the Parent Company and is primarily engaged in the exploration, mining and exporting of nickel ore located in Barangay Valencia, Municipality of Cagdianao, Province of Dinagat Islands.

La Costa Shipping and Lighterage Corporation (LCSLC)
LCSLC was registered with the SEC on October 23, 1992, is a 100% owned subsidiary of the Parent Company through HMC, and is primarily engaged in the chartering out of LCT and providing complete marine services. LCSLC was acquired by HMC in April 2010. In May 2014, the Board of Directors (BOD) of LCSLC authorized the sale of all of its LCTs to HMC for a consideration.

Dinapigue Mining Corporation (DMC)
DMC was registered with the SEC on October 9, 1998, is a 100% owned subsidiary of the Parent Company and is primarily engaged in the exploration, exploitation and mining of metallic and non-metallic minerals, including, but not limited to, nickel, iron, cobalt, chromite and other associated mineral deposits. As at March 13, 2020, DMC has not yet started commercial operations and is currently under development stage.

Samar Nickel Mining Resources Corporation (SNMRC)
SNMRC was registered with the SEC on March 11, 2010, is a 100% owned subsidiary of the Parent Company and is primarily engaged in the exploration, mining and exporting of mineral ores. As at March 13, 2020, SNMRC has not yet started commercial operations.

Coral Pearl Developments Limited (CPDL)
CPDL was incorporated on June 18, 2019 in the British Virgin Islands (BVI) under the BVI Business Companies Act 2004, is a 100% owned subsidiary of the Parent Company and is primarily engaged in the leasing of aircraft.

Falck Exp Inc. (FEI)
FEI was registered with the SEC on November 22, 2005, is an 88% owned subsidiary of the Parent Company through HMC, CMC and Taganito Mining Corporation (TMC), and is primarily engaged in the business of exploring, prospecting and operating mines and quarries of all kinds of ores and minerals, metallic and non-metallic. On August 8, 2014, the BOD of FEI approved the immediate dissolution of FEI. Thereafter, the liquidation process commenced and as a result, FEI changed from going-concern to liquidation basis of accounting. On November 17, 2016, the termination of FEI's registration with the Bureau of Internal Revenue (BIR) was approved. Final dissolution will take place after the approval of FEI's application with the SEC. As at March 13, 2020, FEI is still waiting for the approval of SEC.

Cordillera Exploration Co., Inc. (CExCI)
CExCI was registered with the SEC on October 19, 1994, is a 71.25% owned subsidiary of the Parent Company and is primarily engaged in the business of large-scale exploration, development and utilization of mineral resources. CExCI has a number of mining properties at various stages of exploration. As at March 13, 2020, CExCI is currently not engaged in any development or commercial production activities.

Newminco Pacific Mining Corporation (Newminco)
Newminco was registered with the SEC on October 9, 2006, is a 71.25% owned subsidiary of the Parent Company through CExCI, and is primarily engaged in the exploration, mining, development, utilization, extraction, beneficiation and marketing of minerals and mineral resources. As at March 13, 2020, Newminco is currently not engaged in any development or commercial production activities.

Taganito Mining Corporation
TMC was registered with the SEC on March 4, 1987, is a 65% owned subsidiary of the Parent Company and is primarily engaged in the exploration, mining and exporting of nickel ore located in Claver, Surigao del Norte. TMC also provides services which involves the handling, hauling and transportation of materials required in the processing operations of Taganito HPAL Nickel Corporation (THNC).

Rio Tuba Nickel Mining Corporation (RTN)
RTN was registered with the SEC on July 15, 1969, is a 60% owned subsidiary of the Parent Company and is primarily engaged in the exploration, mining and exporting of nickel ore located in Barangay Rio Tuba, Municipality of Bataraza, Palawan. RTN also provides services which involves the handling, hauling and transportation of materials required in the processing operations of Coral Bay Nickel Corporation (CBNC).

Emerging Power Inc. (EPI)
EPI was registered with the SEC on October 16, 2007, is an 86.29% owned subsidiary of the Parent Company and is primarily engaged in the renewable energy business.

Mindoro Geothermal Power Corporation (MGPC)
MGPC was registered with the SEC on May 7, 2014, is an 86.29% owned subsidiary of the Parent Company through EPI, and is primarily engaged in the renewable energy business. By virtue of a

Deed of Assignment of rights and obligations of EPI under Geothermal Renewable Energy Service Contract (GRESC) No. 2010-02-013 on November 24, 2014, MGPC acquired the exclusive rights to explore, develop and exploit geothermal resources covering a geothermal field in the municipality of Naujan, Oriental Mindoro.

On February 26, 2019, MGPC received the Confirmation of Commerciality for the 10 megawatt (MW) project from the Philippine Government, through the Department of Energy (DOE). MGPC has actively pursued to seek potential investors for the drilling of production wells until the project achieves financial close and has been engaged in various social projects ranging from a series of community lectures, focusing on safety and health and environmental awareness, to educational activities.

As at December 31, 2019, MGPC has been involved in a legal case after receiving a "Notice of Seller Default" from Occidental Mindoro Electric Cooperative (OMECO), alleging therein it has failed to comply with its main obligation under the power supply agreement for the supply of 20MW electricity. MGPC filed on a petition to cite OMECO in indirect contempt for the latter's competitive selection activities for its full load power requirements. On January 6, 2020, the Court directed OMECO to submit a comment on the petition within fifteen (15) days from the receipt of the order and set the hearing of the petition on March 10, 2020.

Manta Energy Inc. (MEI)
MEI was registered with the SEC on May 21, 2007, is an 86.29% owned subsidiary of the Parent Company through EPI, and is primarily engaged in power business, including but not limited to power generation, power trading and supply to retail customers and end users. On July 5, 2016, the Energy Regulatory Commission (ERC) approved MEI's registration as Registered Electric Supplier for a period of five (5) years, and renewable thereafter. On September 18, 2019, EPI sold its investment in MEI to Shell Gas B.V. for ₱100.0 million.

Biliran Holdings Inc. (BHI)
BHI was registered with the SEC on July 31, 2015, is an 86.29% owned subsidiary of the Parent Company through EPI, and is primarily engaged in investing in and holding of assets of every kind and description, as and to the extent permitted by law. It is also registered, within the limits prescribed by law, to engage in the business of infrastructure, power generation, real estate, manufacturing, trading and agribusiness and to pay other evidences of indebtedness or securities of this or any other corporation.

Jobin-SQM, Inc. (Jobin)
Jobin was registered with the SEC on January 6, 2010, is an 86.29% owned subsidiary of the Parent Company through EPI, and is primarily engaged in power business, including but not limited to power generation, power trading and supply to retail customers and end users. Jobin was acquired by EPI on September 11, 2015. On May 23, 2016, Jobin entered into the testing and commissioning phase for the 7.14MW Sta. Rita Solar Power Project. On November 7, 2016, Jobin was granted by ERC a Provisional Authority to Operate (PAO) to transition from testing and commissioning phase to actual production and operation phase for a period of six (6) months for its 7.14MW Sta. Rita Solar Power Plant pending approval of Jobin's dedicated point to point limited facilities to connect to the transmission system. On March 18, 2017, Jobin commenced testing and commissioning phase for the 25.19MW Sta. Rita Solar Power Project and was granted by ERC a PAO to transition from testing and commissioning phase to actual production on September 27, 2017. In 2018, the ERC extended the effectivity of the PAO until May 14, 2019. On January 15, 2019, pursuant to Section 8 of Republic Act (RA) No. 9136 the ERC issued to Jobin the Certificate of Compliance (COC) for the

7.14MW and 25.197MW of Phase I and Phase II, respectively, of the Sta. Rita Solar Power Project. The COC serves as Jobin's authority to operate Phase I and II of the Solar Power Project, valid for a period of five (5) years from November 16, 2016 to November 15, 2021 until revoked or suspended. The certificate was issued subsequent to the authorization granted by the ERC to Jobin to develop and own a dedicated point-to-point limited facility to connect the 100MW Solar Power Plant to the Luzon Grid of the National Grid Corporation of the Philippines (NGCP) via a direct connection at NGCP's Subic Substation on December 28, 2018. Further, Jobin is expected to implement the additional 67.67MW Solar Photovoltaic (PV) Project. Phase III-A for 30MW will start in mid-2020 and the subsequent capacity will be implemented thereafter.

Northern Palawan Power Generation Corporation (NPPGC)
NPPGC was registered with the SEC on July 5, 2017, is an 86.29% owned subsidiary of the Parent Company through EPI, and is primarily engaged in the renewable energy business and in producing and generating electricity and processing fuels alternative for power generation.

Biliran Geothermal Inc. (BGI)
BGI was registered with the SEC on October 31, 2007, is a 51.77% owned subsidiary of the Parent Company through EPI. The principal activities of BGI are to explore, exploit, discover, develop, extract, dig and drill for, produce, utilize, refine, treat, process, transport, store, market, sell, use, supply, experiment with, distribute, manufacture, or otherwise deal in, any substance, minerals or otherwise, which by itself or in contribution with other substances generate or emanate heat or power and to enter into and perform service contracts including geothermal services. On December 28, 2014, BGI received the Confirmation of Commerciality for the Biliran Geothermal Project from the Philippine Government through the DOE. BGI was acquired by BHI on December 17, 2015.

As at December 31, 2019, there are a total of eight (8) wells drilled, with vertical, deviated or directional well tracks. There were no new activities and new wells drilled for 2019. BGI has continued to conduct activities for maintenance of the existing wells and secure the necessary permits and licenses related to the Project.

Mantex Services Inc. (Mantex)
Mantex was registered with the SEC on March 26, 2012, is a 43.15% owned subsidiary of the Parent Company through EPI. Mantex is established primarily to provide technical, financial and public relations advisory, management and investments services for infrastructure projects.

On August 28, 2019, MEI assigned its 50% ownership in Mantex to G.A.A. Delgado Inc. for a consideration.

The consolidated financial statements as at December 31, 2019 and 2018 and for each of the three years in the period ended December 31, 2019 were authorized for issuance by the Parent Company's BOD on March 13, 2020.

2. Basis of Preparation and Consolidation, Statement of Compliance and Summary of Significant Accounting and Financial Reporting Policies

Basis of Preparation
The consolidated financial statements have been prepared on a historical cost basis, except for financial assets at FVOCI and at FVTPL, which are measured at fair value. The consolidated financial statements are presented in Philippine peso, which is the Parent Company and its subsidiaries' (collectively referred to as the Group) functional and presentation (or reporting)

currency, except CPDL whose functional and reporting currency is in United States dollar (US$). All amounts are rounded to the nearest thousand (₱000), except when otherwise indicated.

Basis of Consolidation

The consolidated financial statements include the balances of its subsidiaries and equity share in earnings of its associates:

	Principal Place of Business	Principal Activities	Effective Ownership 2019	Effective Ownership 2018
Subsidiaries				
HMC	Philippines	Mining and Services	**100.00%**	100.00%
CMC	Philippines	Mining	**100.00%**	100.00%
LCSLC [(a)]	Philippines	Services	**100.00%**	100.00%
DMC	Philippines	Mining	**100.00%**	100.00%
SNMRC	Philippines	Mining	**100.00%**	100.00%
CPDL[(e)]	BVI	Services	**100.00%**	–
FEI [(b)]	Philippines	Mining	**88.00%**	88.00%
CExCI	Philippines	Mining	**71.25%**	71.25%
Newminco [(c)]	Philippines	Mining	**71.25%**	71.25%
TMC	Philippines	Mining and Services	**65.00%**	65.00%
RTN	Philippines	Mining and Services	**60.00%**	60.00%
EPI	Philippines	Renewable Energy (RE) Developer	**86.29%**	86.29%
MGPC [(d)]	Philippines	RE Developer	**86.29%**	86.29%
BHI [(d)]	Philippines	Services	**86.29%**	86.29%
Jobin [(d)]	Philippines	Power Generation	**86.29%**	86.29%
NPPGC [(d)]	Philippines	Power Generation	**86.29%**	–
BGI [(d)]	Philippines	Power Generation	**51.77%**	51.77%
MEI [(d,f)]	Philippines	Power Generation, Trading and Services	–	86.29%
Mantex [(d,g)]	Philippines	Management and Advisory Services	–	43.15%
Associates				
THNC	Philippines	Manufacturing	**10.00%**	10.00%
CBNC	Philippines	Manufacturing	**10.00%**	10.00%

(a) Indirect ownership through HMC
(b) Indirect ownership through HMC, CMC and TMC
(c) Indirect ownership through CExCI
(d) Indirect ownership through EPI
(e) Incorporated in BVI on June 18, 2019
(f) Disposed on September 18, 2019
(g) Disposed on August 28, 2019

The consolidated financial statements comprise the financial statements of the Group as at December 31, 2019 and 2018. The financial statements of the subsidiaries are prepared for the same reporting year as the Parent Company using uniform accounting policies. When necessary, adjustments are made to the separate financial statements of the subsidiaries to bring their accounting policies in line with the Group's accounting policies.

Subsidiaries

Subsidiaries are entities over which the Parent Company has control. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The Group controls an investee if and only if the Group has all of the following:
- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure, or rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect its returns.

Generally, there is a presumption that a majority of voting rights results in control. When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:
- The contractual arrangement with the other vote holders of the investee;
- Rights arising from other contractual arrangements; and
- The Group's voting rights and potential voting rights.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Consolidated statement of income and each component of consolidated statement of comprehensive income are attributed to the equity holders of the Parent Company and to the NCI, even if this results in the NCI having a deficit balance.

NCI
NCI represents interest in a subsidiary that is not owned, directly or indirectly, by the Parent Company.

NCI represents the portion of profit or loss and the net assets not held by the Group. Transactions with NCI are accounted for using the entity concept method, whereby the difference between the consideration and the book value of the share in the net assets acquired is recognized as an equity transaction.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Parent Company loses control over a subsidiary, it:
- Derecognizes the assets (including goodwill) and liabilities of the subsidiary;
- Derecognizes the carrying amount of any NCI;
- Derecognizes the cumulative translation differences recorded in equity;
- Recognizes the fair value of the consideration received;
- Recognizes the fair value of any investment retained;
- Recognizes any surplus or deficit in the consolidated statement of income; and
- Reclassifies the Parent Company's share of components previously recognized in the consolidated statement of comprehensive income to consolidated statement of income or retained earnings, as appropriate, as would be required if the Parent Company had directly disposed of the related assets or liabilities.

All intra-group balances, transactions, income and expenses and profits and losses resulting from intra-group transactions are eliminated in full.

Statement of Compliance
The consolidated financial statements of the Group have been prepared in compliance with Philippine Financial Reporting Standards (PFRSs).

Changes in Accounting Policies and Disclosures
The accounting policies adopted are consistent with those of the previous financial year except that the Group has applied for the first time certain pronouncements, which are effective for annual periods beginning on or after January 1, 2019. Adoption of these pronouncements did not have any significant impact on the Group's financial position or performance unless otherwise indicated.

- PFRS 16, *Leases*
  PFRS 16 supersedes Philippine Accounting Standards (PAS) 17, *Leases*, Philippine Interpretation based on International Financial Reporting Interpretations Committee (IFRIC) 4, *Determining Whether an Arrangement Contains a Lease*, Philippine Interpretation based on Standard Interpretations Committee (SIC)-15, *Operating Leases - Incentives* and Philippine Interpretation SIC-27, *Evaluating the Substance of Transactions Involving the Legal Form of a Lease.* The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognize most leases on the statement of financial position.

  Lessor accounting under PFRS 16 is substantially unchanged from today's accounting under PAS 17. Lessors will continue to classify all leases using the same classification principle as in PAS 17 and distinguish between two types of leases: operating and finance leases. Therefore, PFRS 16 did not have an impact for leases where the Group is the lessor.

  The Group adopted PFRS 16 using the modified retrospective approach upon adoption of PFRS 16 in 2019 and elects to apply the standard to contracts that were previously identified as leases applying PAS 17 and Philippine Interpretation IFRIC 4. The Group will therefore not apply the standard to contracts that were not previously identified as containing a lease applying PAS 17 and Philippine Interpretation IFRIC 4.

  The Group has lease contracts for various items of property and equipment. Before the adoption of PFRS 16, the Group classified each of its leases (as lessee) at the inception date as either a finance lease or an operating lease.

  Upon adoption of PFRS 16, the Group applied a single recognition and measurement approach for all leases except for short-term leases and leases of low-value assets. The standard provides specific transition requirements and practical expedients, which have been applied by the Group.

  The effect of adoption of PFRS 16 as at January 1, 2019 is, as follows:

	Increase (decrease)
Assets	
Property and equipment	₱635,282
Prepayments and other current assets	(2,508)
Other noncurrent assets	(11,363)
Liabilities	
Trade and other payables	(18,474)
Current portion of lease liabilities	43,545
Lease liabilities - net of current portion	596,340

Based on the above, as at January 1, 2019:

- Property and equipment were recognized amounting to ₱635.3 million, representing the amount of right-of-use (ROU) assets set up on transition date.
- Advance rental and deposits under "Prepayments and other current assets" of ₱2.5 million and "Other noncurrent assets" of ₱11.4 million, which are all related to the operating lease, and trade and other payables of ₱18.5 million arising from straight lining under PAS 17 were accounted for either as an addition or deduction to the ROU assets.
- Lease liabilities of ₱639.9 million were recognized.

Leases Previously Accounted for as Operating Leases

The Group recognized ROU assets and lease liabilities for those leases previously classified as operating leases, except for short-term leases and leases of low-value assets. The ROU assets were recognized based on the amounts equal to the lease liabilities, adjusted for any advance rental and accrued lease payments previously recognized, apart from the use of incremental borrowing rate at the date of initial application. Lease liabilities were recognized based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at the date of initial application.

The Group also applied the available practical expedients wherein it:

- Used a single discount rate to a portfolio of leases with reasonably similar characteristics
- Relied on its assessment of whether leases are onerous immediately before the date of initial application
- Applied the short-term leases exemptions to leases with lease term that ends within twelve (12) months from the date of initial application
- Excluded the initial direct costs from the measurement of the ROU assets at the date of initial application
- Used hindsight in determining the lease term where the contract contained options to extend or terminate the lease.

The lease liabilities as at January 1, 2019 can be reconciled to the operating lease commitments as at December 31, 2018, as follows:

Undiscounted operating lease commitments as at December 31, 2018	₱3,908,038
Advance rental and deposits	(13,871)
Effect of discounting (a)	(3,254,282)
Discounted operating lease commitments as at January 1, 2019	₱639,885

a) Effect of discounting

The lease liabilities recognized under PFRS 16 are measured on a discounted basis, whereas the operating lease commitments disclosed as at December 31, 2018 were disclosed on an undiscounted basis. The discount rate used to discount the lease payments for each lease is the incremental borrowing rate appropriate for each lease at the date of initial application. The incremental borrowing rates were determined for each lease taking into consideration factors such as the remaining lease term, the nature of the asset, credit risk and economic environment in which the asset was located (which included the currency in which the lease was denominated). The weighted average incremental borrowing rate at transition was 8.32% per annum (p.a.).

Due to the adoption of PFRS 16, the Group's operating profit in 2019 will improve, while its interest expense will increase. This is due to the change in the accounting for rent expense related to leases that were classified as operating lease under PAS 17.

The adoption of PFRS 16 will not have an impact on equity in 2019, since the Group elected to measure the ROU assets at an amount equal to the lease liabilities, adjusted by the amount of any advance or accrued rental relating to the leases recognized in the statement of financial position immediately before the date of initial application.

- Philippine Interpretation based on IFRIC 23, *Uncertainty over Income Tax Treatments*
  The interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of PAS 12, *Income Taxes,* and does not apply to taxes or levies outside the scope of PAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments.

  The interpretation specifically addresses the following:
  - Whether an entity considers uncertain tax treatments separately
  - The assumptions an entity makes about the examination of tax treatments by taxation authorities
  - How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates
  - How an entity considers changes in facts and circumstances

  The entity is required to determine whether to consider each uncertain tax treatment separately or together with one or more other uncertain tax treatments and use the approach that better predicts the resolution of the uncertainty. The entity shall assume that the taxation authority will examine amounts that it has a right to examine and have full knowledge of all related information when making those examinations. If an entity concludes that it is not probable that the taxation authority will accept an uncertain tax treatment, it shall reflect the effect of the uncertainty for each uncertain tax treatment using the method the entity expects to better predict the resolution of the uncertainty.

  The interpretation has no impact on the consolidated financial statements of the Group.

- Amendments to PFRS 9, *Financial Instruments, Prepayment Features with Negative Compensation*
  Under PFRS 9, a debt instrument can be measured at amortized cost or at FVOCI, provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to PFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract.

  These amendments had no impact on the consolidated financial statements of the Group.

- Amendments to PAS 19, *Employee Benefits, Plan Amendment, Curtailment or Settlement*
  The amendments to PAS 19 address the accounting when a plan amendment, curtailment or settlement occurs during a financial reporting period. The amendments specify that when a plan amendment, curtailment or settlement occurs during the annual financial reporting period, an entity is required to:
  - Determine current service cost for the remainder of the period after the plan amendment, curtailment or settlement, using the actuarial assumptions used to remeasure the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event
  - Determine net interest for the remainder of the period after the plan amendment, curtailment or settlement using: the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and the discount rate used to remeasure that net defined benefit liability (asset).

  The amendments also clarify that an entity first determines any past service cost, or a gain or loss on settlement, without considering the effect of the asset ceiling. This amount is recognized in the statement of comprehensive income. An entity then determines the effect of the asset ceiling after the plan amendment, curtailment or settlement. Any change in that effect, excluding amounts included in the net interest, is recognized in other comprehensive income.

  The amendments had no impact on the consolidated financial statements of the Group as it did not have any plan amendments, curtailments, or settlements during the period.

- Amendments to PAS 28, *Investments in Associates and Joint Ventures, Long-term Interests in Associates and Joint Ventures*
  The amendments clarify that an entity applies PFRS 9 to long-term interests in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). This clarification is relevant because it implies that the expected credit loss (ECL) model in PFRS 9 applies to such long-term interests.

  The amendments also clarified that, in applying PFRS 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognized as adjustments to the net investment in the associate or joint venture that arise from applying PAS 28, *Investments in Associates and Joint Ventures*.

  These amendments had no impact on the consolidated financial statements of the Group.

Annual Improvements to PFRSs 2015-2017 Cycle

- Amendments to PFRS 3, *Business Combinations*, and PFRS 11, *Joint Arrangements, Previously Held Interest in a Joint Operation*
  The amendments clarify that, when an entity obtains control of a business that is a joint operation, it applies the requirements for a business combination achieved in stages, including remeasuring previously held interests in the assets and liabilities of the joint operation at fair value. In doing so, the acquirer remeasures its entire previously held interest in the joint operation.

  A party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business as defined in PFRS 3. The amendments clarify that the previously held interests in that joint operation are not remeasured.

An entity applies those amendments to business combinations for which the acquisition date is on or after the beginning of the first annual financial reporting period, which was January 1, 2019, and to transactions in which it obtains joint control on or after the beginning of the first annual financial reporting period or January 1, 2019, with early application permitted.

These amendments had no impact on the consolidated financial statements of the Group as there is no transaction where joint control is obtained.

- Amendments to PAS 12, *Income Tax Consequences of Payments on Financial Instruments Classified as Equity*
  The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognizes the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events.

  An entity applies those amendments for annual financial reporting periods beginning on or after January 1, 2019, with early application is permitted.

  These amendments had no impact on the consolidated financial statements of the Group because dividends declared by the Group do not give rise to tax obligations under the current tax laws.

- Amendments to PAS 23, *Borrowing Costs, Borrowing Costs Eligible for Capitalization*
  The amendments clarify that an entity treats as part of general borrowings any borrowing originally made to develop a qualifying asset when substantially all of the activities necessary to prepare that asset for its intended use or sale are complete.

  An entity applies those amendments to borrowing costs incurred for annual financial reporting periods beginning on or after January 1, 2019, with early application permitted.

  Since the Group's current practice is in line with these amendments, the amendments had no impact on the consolidated financial statements of the Group.

Standards and Interpretations Issued but not yet Effective
Pronouncements issued but not yet effective are listed below. Unless otherwise indicated, the Group does not expect that the future adoption of the said pronouncements will have a significant impact on its consolidated financial statements. The Group intends to adopt the following pronouncements when they become effective.

Effective beginning on or after January 1, 2020:

- Amendments to PFRS 3, *Definition of a Business*
  The amendments to PFRS 3 clarify the minimum requirements to be a business, remove the assessment of a market participant's ability to replace missing elements, and narrow the definition of outputs. The amendments also add guidance to assess whether an acquired process is substantive and add illustrative examples. An optional fair value concentration test is introduced which permits a simplified assessment of whether an acquired set of activities and assets is not a business.

  An entity applies those amendments prospectively for annual financial reporting periods beginning on or after January 1, 2020, with earlier application permitted.

These amendments will apply on future business combinations of the Group.

- Amendments to PAS 1, *Presentation of Financial Statements*, and PAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*, *Definition of Material*
  The amendments refine the definition of material in PAS 1 and align the definitions used across PFRSs and other pronouncements. They are intended to improve the understanding of the existing requirements rather than to significantly impact an entity's materiality judgements.

  An entity applies those amendments prospectively for annual financial reporting periods beginning on or after January 1, 2020, with earlier application permitted.

Effective beginning on or after January 1, 2021:

- PFRS 17, *Insurance Contracts*
  PFRS 17 is a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, PFRS 17 will replace PFRS 4, *Insurance Contracts*. This new standard on insurance contracts applies to all types of insurance contracts (i.e., life, nonlife, direct insurance and reinsurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply.

  The overall objective of PFRS 17 is to provide an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast to the requirements in PFRS 4, which are largely based on grandfathering previous local accounting policies, PFRS 17 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects. The core of PFRS 17 is the general model, supplemented by:
  - A specific adaptation for contracts with direct participation features (the variable fee approach)
  - A simplified approach (the premium allocation approach) mainly for short-duration contracts

  PFRS 17 is effective for financial reporting periods beginning on or after January 1, 2021, with comparative figures required. Early application is permitted.

  The new standard is not expected to have any impact on the consolidated financial statements of the Group.

Deferred Effectivity:

- Amendments to PFRS 10, *Consolidated Financial Statements*, and PAS 28, *Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*
  The amendments address the conflict between PFRS 10 and PAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that a full gain or loss is recognized when a transfer to an associate or joint venture involves a business as defined in PFRS 3. Any gain or loss resulting from the sale or contribution of assets that does not constitute a business, however, is recognized only to the extent of unrelated investors' interests in the associate or joint venture.

  On January 13, 2016, the Financial Reporting Standards Council deferred the original effective date of January 1, 2016 of the said amendments until the International Accounting Standards Board completes its broader review of the research project on equity accounting that may result in the simplification of accounting for such transactions and of other aspects of accounting for associates and joint ventures.

The Group is currently assessing the impact of adopting the amendments to this standard on its consolidated financial statements.

The revised, amended and additional disclosures or accounting changes provided by the standards and interpretations will be included in the consolidated financial statements in the year of adoption, if applicable.

Summary of Significant Accounting and Financial Reporting Policies

Presentation of Consolidated Financial Statements
The Group has elected to present all items of recognized income and expense in two statements: a statement displaying components of profit or loss (consolidated statement of income) and a second statement beginning with profit or loss and displaying components of other comprehensive income (consolidated statement of comprehensive income).

Foreign Currency Transactions
Transactions in foreign currencies are initially recorded in the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at functional currency rate of exchange ruling at the end of the financial reporting period. Nonmonetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates prevailing as at the date of the initial transactions. Nonmonetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. All differences are taken to “Other income (charges) - net” in the consolidated statement of income.

As at the end of the financial reporting period, the statement of financial position of associates and a subsidiary (whose functional currency is other than the Philippine peso) is translated into the presentation currency of the Group (the Philippine peso) using the rate of exchange prevailing at the end of the financial reporting period and the consolidated statement of income is translated using the weighted average exchange rate for the year. The exchange differences arising on the translation is recognized in other comprehensive income. Upon disposal of such associate, the component of other comprehensive income relating to that particular associate will be recognized in the consolidated statement of income.

Current versus Noncurrent Classification
The Group presents assets and liabilities in the consolidated statement of financial position based on current/noncurrent classification. An asset is current when it is:
- Expected to be realized or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realized within twelve (12) months after the end of the financial reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve (12) months after the end of the financial reporting period.

The Group classifies all other assets as noncurrent.

A liability is current when:
- It is expected to be settled in normal operating cycle;
- It is held primarily for the purpose of trading;
- It is due to be settled within twelve (12) months after the end of the financial reporting period; or
- There is no unconditional right to defer the settlement of the liability for at least twelve (12) months after the end of the financial reporting period.

The Group classifies all other liabilities as noncurrent.

Fair Value Measurement

The Group measures financial instruments at fair value at each end of the financial reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible to the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a nonfinancial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest-level input that is significant to the fair value measurement as a whole:

- Level 1 - Quoted (unadjusted) market prices in active markets for identical assets or liabilities;
- Level 2 - Valuation techniques for which the lowest-level input that is significant to the fair value measurement is directly or indirectly observable; and
- Level 3 - Valuation techniques for which the lowest-level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between Levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at each end of the financial reporting period.

The fair value of financial instruments that are actively traded in organized financial markets is determined by reference to quoted market close prices at the close of business at the end of the financial reporting period.

For financial instruments where there is no active market, fair value is determined using valuation techniques. Such techniques include comparison to similar investments for which market observable prices exist and discounted cash flow analysis or other valuation models.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the Level of the fair value hierarchy as explained above.

Cash and Cash Equivalents
Cash includes cash on hand, with banks and under managed funds. Cash with banks and under managed funds earn interest at the prevailing bank deposit rates. Cash equivalents pertain to short-term cash investments that are made for varying periods of up to three (3) months depending on the immediate cash requirements of the Group and earn interest at the respective short-term cash investment rates.

Financial Instruments
A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Date of Recognition
The Group recognizes a financial asset or a financial liability in the consolidated statement of financial position when it becomes a party to the contractual provisions of the instrument.

Purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace (regular way trades) are recognized on the trade date (i.e., the date that the Group commits to purchase or sell the asset).

Financial Assets - Applicable until December 31, 2017 Prior to the Adoption of PFRS 9
Initial Recognition, Classification and Measurement of Financial Instruments
The Group determines the classification of financial instruments at initial recognition and, where allowed and appropriate, re-evaluates this designation at every end of the financial reporting period.

Financial assets within the scope of PAS 39 are classified in the following categories: financial assets at FVTPL, loans and receivables, held-to-maturity (HTM) investments, AFS financial assets, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

The classification depends on the purpose for which the investments were acquired and whether they are quoted in an active market.

All financial instruments are recognized initially at fair value. Directly attributable transaction costs are included in the initial measurement of all financial instruments, except for financial instruments measured at FVTPL.

The Group's financial assets are in the nature of loans and receivables and AFS financial assets. The Group has no financial assets at FVTPL, HTM investments and derivatives designated as hedging instruments in an effective hedge.

Subsequent Measurement
The subsequent measurement of financial instruments depends on their classification as follows:

Loans and Receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are not entered into with the intention of immediate or short-term resale and are not classified as "Financial assets held for trading", designated as "AFS financial assets" or "Financial assets designated at FVTPL". After initial measurement, loans and receivables are subsequently measured at amortized cost using the effective interest rate (EIR) method, less any allowance for impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The amortization and losses arising from impairment are included in "Other income (charges) - net" in the consolidated statement of income. Gains and losses are recognized in the consolidated statement of income when the loans are derecognized or impaired as well as through the amortization process.

Loans and receivables are included in current assets if maturity is within twelve (12) months from the end of the financial reporting period or within the Group's normal operating cycle, whichever is longer. Otherwise, these are classified as noncurrent assets.

AFS Financial Assets

AFS financial assets are those which are designated as such or do not qualify to be classified or designated at FVTPL, HTM investments or loans and receivables.

Financial assets may be designated at initial recognition as AFS financial assets if they are purchased and held indefinitely, and may be sold in response to liquidity requirements or changes in market conditions.

AFS financial assets are included in current assets if it is expected to be realized or disposed of within twelve (12) months from the end of the financial reporting period. Otherwise, these are classified as noncurrent assets.

When the security is disposed of, the cumulative gain or loss previously recognized in "Net valuation gains (losses) on financial assets" under equity is recognized in the consolidated statement of income. Where the Group holds more than one investment in the same security, these are deemed to be disposed of on a first-in, first-out basis. Interest earned on holding AFS financial assets are reported as "Interest income" using the EIR. Dividends earned on holding AFS financial assets are recognized in the consolidated statement of income when the right to receive payment has been established. The losses arising from impairment of such investments are recognized in the consolidated statement of income.

The Group uses the specific identification method in determining the cost of securities sold.

Impairment of Financial Assets

The Group assesses at the end of each financial reporting period whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred "loss event") and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

Loans and Receivables

For financial assets carried at amortized cost, the Group first assesses individually whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognized are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss was incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future ECL that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial assets' original EIR. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current EIR.

The carrying amount of the assets is reduced through the use of an allowance account and the amount of loss is recognized in the consolidated statement of income. Interest income continues to be accrued on the reduced carrying amount and is accrued using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of "Finance income" in the consolidated statement of income.

Loans, together with the associated allowance, are written-off when there is no realistic prospect of future recovery and all collateral has been realized or has been transferred to the Group.

If, in a subsequent year, the amount of the estimated impairment loss decreases because of an event occurring after the impairment loss was recognized, the previously recognized impairment loss is increased or reduced by adjusting the allowance account. Any subsequent reversal of an impairment loss is recognized in the consolidated statement of income, to the extent that the carrying value of the asset does not exceed its amortized cost at the reversal date.

AFS Financial Assets

For AFS financial assets, the Group assesses at each end of the financial reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired.

In the case of equity investments classified as AFS financial assets, objective evidence would include a significant or prolonged decline in the fair value of the investments below its cost. The determination of what is "significant" or "prolonged" requires judgment. "Significant" is to be evaluated against the original cost of the investment and "prolonged" is to be evaluated against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss (measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognized in other comprehensive income) is removed from other comprehensive income and recognized in the consolidated statement of income.

Impairment losses on equity investments are not reversed through the consolidated statement of income while increases in fair value after impairment are recognized directly in other comprehensive income under equity.

In the case of debt instruments classified as AFS financial assets, the impairment is assessed based on the same criteria as financial assets carried at amortized cost. However, the amount recorded for impairment is the cumulative loss measured as the difference between the amortized cost and the current fair value, less any impairment loss on that investment previously recognized in the consolidated statement of income.

Future interest income continues to be accrued based on the reduced carrying amount of the asset, using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of "Finance income" in the consolidated statement of income. If, in the subsequent year, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognized through the consolidated statement of income, the impairment loss is reversed through the consolidated statement of income.

If there is objective evidence of impairment loss in unquoted equity instrument for AFS financial assets carried at cost, such as unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Objective evidence of impairment includes, but is not limited to, significant financial difficulty of the issuer or obligor and it becoming probable that the borrower will enter bankruptcy or other financial reorganization.

Financial Assets - Applicable Starting January 1, 2018 Upon Adoption of PFRS 9

Initial Recognition, Classification and Measurement of Financial Instruments

Financial assets are classified, at initial recognition, as subsequently measured at FVOCI, at FVTPL and at amortized cost.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at FVTPL, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient for contracts that have a maturity of one (1) year or less, are measured at the transaction price determined under PFRS 15.

In order for a financial asset to be classified and measured at amortized cost or at FVOCI, it needs to give rise to cash flows that are SPPI on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

In making this assessment, the Group determines whether the contractual cash flows are consistent with a basic lending arrangement, i.e., interest includes consideration only for the time value of money, credit risk and other basic lending risks and costs associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement. The assessment as to whether the cash flows meet the test is made in the currency in which the financial asset is denominated. Any other contractual terms that introduce exposure to risks or volatility in the contractual cash flows that is unrelated to a basic lending arrangement, such as exposure to changes in equity prices or commodity prices, do not give rise to contractual cash flows that are SPPI on the principal amount outstanding.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Relevant factors considered by the Group in determining the business model for a group of financial assets include how the performance of the business model and the financial assets held within that business model are evaluated and reported to the Group's key management personnel, the risks that affect the performance of the business model (and the financial assets held within that business model) and how these risks are managed and how managers of the business are compensated.

Subsequent Measurement

For purposes of subsequent measurement, the Group's financial assets are classified in the following categories:

- Financial assets at FVOCI with recycling of cumulative gains and losses (debt instruments)
- Financial assets at FVTPL
- Financial assets at amortized cost (debt instruments)

Financial Assets at FVOCI (Debt Instruments)

The Group measures debt instruments at FVOCI if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding

For debt instruments at FVOCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the consolidated statement of income and computed in the same manner as for financial assets measured at amortized cost. The remaining fair value changes are recognized in other comprehensive income. Upon derecognition, the cumulative fair value change recognized in other comprehensive income is recycled to the consolidated statement of income.

The Group's debt instruments at FVOCI include investments in quoted debt instruments such as government and corporate bonds and other similar investments (see Note 7). The Group does not hold equity instrument measured at FVOCI.

Financial Assets at FVTPL

Financial assets at FVTPL include financial assets held for trading, financial assets designated upon initial recognition at FVTPL, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not SPPI are classified and measured at FVTPL, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortized cost or at FVOCI, as described above, debt instruments may be designated at FVTPL on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at FVTPL are carried in the consolidated statement of financial position at fair value with net changes in fair value recognized in the consolidated statement of income. A derivative embedded in a hybrid contract with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at FVTPL. Embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

This category includes debt and equity investments which the Group had not irrevocably elected to classify at FVOCI (see Note 7). Dividends on equity investments are recognized under "Other income (charges) - net" in the consolidated statement of income when the right of payment has been established.

Financial Assets at Amortized Cost

The Group measures financial assets at amortized cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding

Financial assets at amortized cost are subsequently measured using the EIR method and are subject to impairment. Gains and losses are recognized in the consolidated statement of income when the asset is derecognized, modified or impaired.

The Group's financial assets at amortized cost includes cash and cash equivalents, trade and other receivables, investment in certain debt instruments, short-term cash investments, loan receivable and long-term negotiable instruments (see Notes 4, 5, 7, 8 and 13).

Impairment of Financial Assets
The Group recognizes an allowance for ECLs for all debt instruments not held at FVTPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original EIR. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

Financial assets migrate through the following three (3) stages based on the change in credit quality since initial recognition:

Stage 1: 12-month ECL. For credit exposures where there have not been significant increases in credit risk since initial recognition and that are not credit-impaired upon origination, the portion of lifetime ECLs that represent the ECLs that result from default events that are possible within the twelve (12)-months after the financial reporting date are recognized.

Stage 2: Lifetime ECL - not credit-impaired. For credit exposures where there have been significant increases in credit risk since initial recognition on an individual or collective basis but are not credit-impaired, lifetime ECLs representing the ECLs that result from all possible default events over the expected life of the financial asset are recognized.

Stage 3: Lifetime ECL - credit-impaired. Financial assets are credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of those financial assets have occurred. For these credit exposures, lifetime ECLs are recognized and interest revenue is calculated by applying the credit-adjusted EIR to the amortized cost of the financial asset.

<u>Determining the Stage for Impairment</u>
At each financial reporting date, the Group assesses whether there has been a significant increase in credit risk for financial assets since initial recognition by comparing the risk of default occurring over the expected life between the financial reporting date and the date of initial recognition. The Group considers reasonable and supportable information that is relevant and available without undue cost or effort for this purpose. This includes quantitative and qualitative information and forward-looking analysis.

Exposures that have not deteriorated significantly since origination, or where the deterioration remains within the Group's investment grade criteria are considered to have a low credit risk. The provision for credit losses for these financial assets is based on a twelve (12)-month ECL. The low credit risk exemption has been applied on debt investments that meet the investment grade criteria of the Group from the time of origination.

An exposure will migrate through the ECL stages as asset quality deteriorates. If, in a subsequent period, asset quality improves and also reverses any previously assessed significant increase in credit risk since origination, then the loss allowance measurement reverts from lifetime ECL to twelve (12)-month ECL.

For cash and cash equivalents and short-term cash investments, the Group applies a general approach in calculating ECLs. The Group recognizes a loss allowance based on either a twelve (12)-month ECL or lifetime ECL, depending on whether there has been a significant increase in credit risk on its cash and cash equivalents and short-term cash investments since initial recognition.

The Group computes ECLs using the discounted product of the Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD) for trade receivables. The Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each end of the financial reporting period.

The Group's debt instruments at FVOCI and at amortized cost comprise of quoted bonds and government securities that are graded in the investment category by either Standard and Poor's (S&P), Moody's, Bloomberg or Fitch (collectively referred to as the Credit Rating Agencies), whichever is applicable, and, therefore, are considered to be low credit risk investments. It is the Group's policy to measure ECLs on such instruments on a twelve (12)-month basis. However, when there has been a significant increase in credit risk since origination, the allowance will be based on the lifetime ECL. The Group uses the ratings from the Credit Rating Agencies both to determine whether the debt instrument has significantly increased in credit risk and to estimate ECLs.

The Group considers a financial asset in default when contractual payments are thirty (30) days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

The Group writes-off a financial asset measured at amortized cost, in whole or in part, when the asset is considered uncollectible, it has exhausted all practical recovery efforts and has concluded that it has no reasonable expectations of recovering the financial asset in its entirety or a portion thereof. The Group writes-off an account when all of the following conditions are met:

- the asset is past due for over thirty (30) days, or is already an item-in-litigation with any of the following:
  a. no properties of the counterparty could be attached
  b. the whereabouts of the counterparty cannot be located
  c. it would be more expensive for the Group to follow-up and collect the amount, hence the Group have ceased enforcement activity, and
  d. collections can no longer be made due to insolvency or bankruptcy of the counterparty
- expanded credit arrangement is no longer possible;
- filing of legal case is not possible; and
- the account has been classified as 'Loss'.

Derecognition
A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e., removed from the Group's consolidated statement of financial position) when:

- The rights to receive cash flows from the asset have expired, or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "passthrough" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a passthrough arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Financial Liabilities

Initial Recognition, Classification and Measurement of Financial Instruments

Financial liabilities are classified, at initial recognition, as financial liabilities at FVTPL, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

Financial instruments are classified as liabilities or equity in accordance with the substance of the contractual arrangement. Interest, dividends, gains and losses relating to a financial instrument or a component that is a financial liability, are reported as expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity net of any related income tax.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities are in the nature of other financial liabilities. The Group has no financial liabilities classified as at FVTPL and derivatives designated as hedging instruments in an effective hedge.

Subsequent Measurement

The measurement of other financial liabilities is as described below:

Other Financial Liabilities

This category pertains to financial liabilities that are not held for trading, not derivatives, or not designated at FVTPL upon the inception of the liability. After initial recognition, other financial liabilities are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in the consolidated statement of income when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any issue cost, and any discount or premium on settlement. The EIR amortization is included under "Cost of power generation" and "Finance expense" in the consolidated statement of income.

Other financial liabilities are included in current liabilities if settlement is within twelve (12) months from the end of the financial reporting period, otherwise, these are classified as noncurrent liabilities.

This accounting policy applies primarily to the Group's trade and other payables, short-term and long-term debts, long-term payable, lease liabilities and other obligations that meet the above definition (excluding government payables and other liabilities that are covered by other accounting standards, such as income tax payable and pension; see Notes 14, 15, 17 and 35).

Derecognition
A financial liability is derecognized when the obligation under the liability is discharged or cancelled or has expired.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts of a financial liability extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in the consolidated statement of income.

Reclassifications of Financial Instruments - Applicable Starting January 1, 2018 Upon Adoption of PFRS 9
The Group reclassifies its financial assets when, and only when, there is a change in the business model for managing the financial assets. Reclassifications shall be applied prospectively by the Group and any previously recognized gains, losses or interest shall not be restated. The Group does not reclassify its financial liabilities.

Offsetting of Financial Instruments
Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously. The Group assesses that it has a currently enforceable right of offset and the right is not contingent on a future event, event of default and event of insolvency or bankruptcy of the Group and all of the counterparties, and is legally enforceable in the normal course of business.

Inventories
Inventories, including the long-term stockpile inventory, are carried at the lower of cost and net realizable value (NRV). Cost is determined by the moving average production cost during the year for beneficiated nickel ore and limestone exceeding a determined cut-off grade and average handling costs of limonite ores. The NRV of beneficiated nickel ore and limestone inventories is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. Periodic ore inventory survey is performed to determine the volume of ore inventory.

For materials and supplies, cost is determined using the moving average method and composed of purchase price, transport, handling and other costs directly attributable to its acquisition. The NRV of materials and supplies is the current replacement cost. Any provision for inventory losses is determined by reference to specific items of stock. A regular review is undertaken to determine the extent of any provision or obsolescence.

The long-term stockpile inventory cost is represented by the fair value of the long-term stockpile inventory related to the acquisition of the controlling interest in RTN in August 2006. The fair value was determined using the present value of the estimated cash flows, which RTN will derive from the sale of this inventory to CBNC under its Nickel Ore Supply Agreement with CBNC (see Note 34a). After initial recognition, the long-term stockpile inventory is subsequently charged to cost of sale of ore based on actual tonnage delivered to CBNC. NRV of long-term stockpile inventory is the estimated selling price in the ordinary course of business less the estimated costs necessary to make the sale.

Prepayments and Other Current Assets
Prepayments and other current assets include input Value Added Tax (VAT), prepaid taxes, tax credit certificates, advances and deposits, short-term cash investments, current portion of long-term negotiable instruments, restricted cash, and various prepayments which the Group expects to realize or consume the assets within twelve (12) months after the end of the financial reporting period.

VAT
Revenues, expenses, and assets are recognized net of the amount of VAT, if applicable.

When VAT from sales of goods and/or services (output VAT) exceeds VAT passed on from purchases of goods or services (input VAT), the excess is recognized as payable in the consolidated statement of financial position. When VAT passed on from purchases of goods or services (input VAT) exceeds VAT from sales of goods and/or services (output VAT), the excess is recognized as an asset in the consolidated statement of financial position. Deferred input VAT, which represents input VAT on capital assets subject to amortization, and any excess input VAT which: (1) may be utilized against output VAT, if any, beyond twelve (12) months from the end of the financial reporting period; or (2) are being claimed for refund or as tax credits with the BIR and/or Court of Tax Appeals are presented as part of "Other noncurrent assets" in the consolidated statement of financial position. Input VAT is stated at cost less any impairment in value.

Property and Equipment
The Group's property and equipment consist of land and land improvements, mining properties and development costs, machinery and equipment, buildings and improvements, transmission lines and substations, solar farm, construction in-progress and ROU assets that do not qualify as investment properties.

Property and equipment, except land, is stated at cost, excluding the costs of day-to-day servicing, less accumulated depreciation, amortization and depletion and accumulated impairment loss, if any. The initial cost of property and equipment consists of its purchase price including import duties and any directly attributable costs of bringing the property and equipment to its working condition and location for its intended use. Such cost also includes the cost of replacing part of such property and equipment when the recognition criteria are met. When each major inspection is performed, its cost is recognized in the carrying amount of the property and equipment as a replacement if the recognition criteria are satisfied. Land is carried at cost less any accumulated impairment loss.

Effective January 1, 2019, it is the Group's policy to classify ROU assets as part of property and equipment. Prior to that date, all of the Group's leases are accounted for as operating leases in accordance with PAS 17, hence, not recorded on the statement of financial position. The Group recognizes ROU assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). ROU assets are initially measured at cost, less any accumulated amortization and impairment losses, and adjusted for any remeasurement of lease liabilities. The initial cost of ROU assets includes the amount of lease liabilities recognized, initial direct costs incurred, lease payments made at or before the commencement date less any lease incentives received and estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless those costs are incurred to produce inventories.

Construction in-progress represents work under construction and is stated at cost. Construction in-progress is not depreciated until such time that the relevant assets are completed and available for use. This also include interest on borrowed funds incurred during the construction period.

Depreciation and amortization are computed using the straight-line method over the following estimated useful lives of the assets:

Category	Number of Years
Land improvements	5
Machinery and equipment	2-15
Buildings and improvements	2-25
Transmission lines and substations	10-40
Solar farm	5-40

Mining properties and development costs include the capitalized cost of mine rehabilitation and decommissioning and other development cost necessary to prepare the area for operations. Depletion of mining properties and development costs is calculated using the unit-of-production method based on the estimated economically recoverable reserves to which they relate to or are written-off if the property is abandoned. Development costs are depreciated using the straight-line method over the estimated useful life of the asset of twenty (20) to thirty (30) years.

Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized ROU assets are depreciated on a straight-line basis over the shorter of their estimated useful life and lease term of four (4) to fifty (50) years. ROU assets are subject to impairment.

Depreciation, amortization and depletion of property and equipment, except land, begins when it becomes available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management, or in case of mining properties, from start of commercial operations upon extraction of ore reserves. Depreciation, amortization and depletion ceases when the assets are fully depreciated, amortized or depleted, or at the earlier of the date that the item is classified as held for sale (or included in the disposal group that is classified as held for sale) in accordance with PFRS 5, *Noncurrent Assets Held for Sale and Discontinued Operations*, and the date the item is derecognized.

The assets' estimated recoverable reserves, residual values, useful lives and depreciation, amortization and depletion methods are reviewed periodically to ensure that the estimated recoverable reserves, residual values, periods and methods of depreciation, amortization and depletion are consistent with the expected pattern of economic benefits from items of property and equipment. If there is an indication that there has been a significant change in depreciation, amortization and depletion rate, useful life or residual value of an asset, these are revised prospectively to reflect the new expectations.

The carrying values of property and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable.

An item of property and equipment is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the consolidated statement of income in the year the asset is derecognized.

The asset revaluation surplus which arose from the acquisition of the controlling interest in RTN in August 2006, relates to the land, machinery and equipment, and building and improvements. The related and applicable depreciation on these assets is transferred periodically to retained earnings.

Fully depreciated assets are retained in the accounts until they are no longer in use and no further depreciation is charged to current operations.

Borrowing Cost
Borrowing costs directly attributable to the development of the Group's projects that necessarily take a substantial period of time to get ready for its intended use are capitalized. Borrowing costs consist of interest on borrowed funds used to finance the construction of the asset and other financing costs that the Group incurs in connection with the borrowing of funds. The capitalization of the borrowing cost as part of the cost of the asset: (a) commences when the expenditures and borrowing costs are being incurred during the construction and related activities necessary to prepare the asset for its intended use are in progress; and (b) ceases when substantially all the activities necessary to prepare the asset for its intended use are complete. Capitalized borrowing costs are based on the applicable borrowing rate agreed in the agreement.

Investments in Associates
Associates are entities over which the Group is able to exert significant influence. Significant influence is the power to participate in the financial and reporting policy decisions of the investee, but has no control or joint control over those policies. The considerations made in determining significant influence are similar to those necessary to determine control activities. The Group's investments in associates are accounted for using the equity method, less any impairment in value, in the consolidated statement of financial position.

The consolidated statement of income reflects the Group's share of the results of operations of the associates. When there has been a change recognized directly in the equity of the associate, the Group recognizes its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associates are eliminated to the extent of the interest in the associate. The aggregate of the Group's share in profit or loss of an associate is shown in the consolidated statement of income outside operating profit and represents profit or loss after tax and NCI in the subsidiaries of the associate.

Upon loss of significant influence over the associate, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognized in the consolidated statement of income.

If the ownership interest in an associate is reduced, but the investment continuous to be an associate, the Group shall reclassify to profit or loss the proportion gain or loss that had previously been recognized in other comprehensive income relating to the reduction in ownership interest if that gain or loss would be required to be reclassified to profit or loss on the disposal of the related asset.

The financial statements of the associates are prepared for the same reporting period and using uniform accounting policies as the Group. When necessary, adjustments are made to bring the accounting policies of the associates in line with those of the Group.

Geothermal Exploration and Evaluation Assets
The Group follows the full cost method of accounting for its geothermal exploration and evaluation assets determined on the basis of the service contract. Under this method, all exploration costs relating to each service contract are accumulated and deferred under "Geothermal exploration and evaluation assets" account in the consolidated statement of financial position pending the determination of whether the wells have proved reserves. Capitalized expenditures include costs of license acquisition, technical services and studies, exploration drilling and testing, and appropriate technical and administrative expenses. General overhead or costs incurred prior to having obtained the legal rights to explore an area are recognized as expense in the consolidated statement of income when incurred.

If tests conducted on the drilled exploratory wells reveal that these wells cannot produce proved reserves, the capitalized costs are charged to expense except when the management decides to use the unproductive wells, for recycling or waste disposal.

Once the technical feasibility and commercial viability of the project to produce proved reserves are established, the geothermal exploration and evaluation assets are reclassified to property and equipment.

Geothermal exploration and evaluation assets are derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the assets. Any gain or loss arising from the derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the assets) is included in the consolidated statement of income in the year the item is derecognized.

Geothermal exploration and evaluation assets also include interest on borrowed funds that are directly attributable to the construction and development of the Group's projects.

Other Noncurrent Assets
Other noncurrent assets of the Group include deferred mine exploration costs, input VAT, loan receivable, mine rehabilitation fund (MRF), advances and deposits, project development costs, Social Development Management Program (SDMP) funds, long-term negotiable instruments, investment properties, computer software, pension asset, and other deposits. Aside from MRF, SDMP funds and restricted cash which are restriced as to withdrawal for specified purpose, these are classified as noncurrent since the Group expects to utilize the assets beyond twelve (12) months from the end of the financial reporting period.

Deferred Mine Exploration Costs
Expenditures for the acquisition of property rights are capitalized. Expenditures for mine exploration work prior to drilling are charged to operations. When it has been established that a mineral deposit is commercially mineable and a decision has been made to formulate a mining plan (which occurs upon completion of a positive economic analysis of the mineral deposit), costs subsequently incurred to develop a mine on the property prior to the start of mining operations are capitalized. Upon the start of commercial operations, such costs are transferred to property and equipment. Capitalized amounts may be written down if future cash flows, including potential sales proceeds related to the property, are projected to be less than the carrying value of the property. If no mineable ore body is discovered, capitalized acquisition costs are expensed in the period in which it is determined that the mineral property has no future economic value. Costs incurred during the start-up phase of a mine are expensed as incurred. Ongoing mining expenditures on producing properties are charged against earnings as incurred. Major development expenditures incurred to expose the ore, increase production or extend the life of an existing mine are capitalized.

Deferred Stripping Costs
Stripping costs incurred in the development of a mine before production commences are capitalized as part of the cost of constructing the mine which are amortized subsequently. Where a mine operates several open pit that are regarded as separate operations for the purpose of mine planning, stripping costs are accounted for separately by reference to the ore from each separate pit. If, however, the pits are highly integrated for the purpose of the mine planning, the second and subsequent pits are regarded as extensions of the first pit in accounting for stripping costs. In such cases, the initial stripping (i.e., overburden and other waste removal) of the second and subsequent pits is considered to be production phase stripping relating to the combined operation.

For stripping costs incurred subsequently during the production stage of the operation, the stripping activity cost is accounted as part of the cost of inventory if the benefit from the stripping activity will be realized in the current period. When the benefit is the improved access to ore, the Group shall recognize these costs as stripping activity assets. The stripping activity asset is accounted for as an addition to, or as an enhancement of, an existing asset. After initial recognition, the deferred stripping cost is carried at its cost less depreciation or amortization and less impairment losses.

Project Development Costs
Project development costs are expensed as incurred until management determines that the project is technically, commercially, and financially viable, at which time project development costs are capitalized. Project's viability generally occurs in tandem with management's determination that a project should be classified as an advanced project as evidenced by a favorable system impact study, interconnection agreements, or when project financing is in place.

Following initial recognition of the project development cost as an asset, the cost model is applied requiring the asset to be carried at cost less accumulated amortization and any accumulated impairment losses. Amortization of the asset begins when the development of the wind and solar energy projects is complete and the asset is available for use. It is amortized using the straight-line method over the period of expected future benefit. During the period in which the asset is not yet available for use, the project development costs are tested for impairment annually, irrespective of whether there is indication of impairment.

Investment Properties
Investment properties, which pertain to land, are measured initially at cost, including transaction costs. The carrying amount includes the cost of replacing part of an existing investment property at the time that cost is incurred if the recognition criteria are met and excludes the costs of day-to-day servicing of an investment property. Subsequent to initial recognition, investment property is carried at cost less any accumulated impairment losses.

Investment property is derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. Any gains or losses on the retirement or disposal of an investment property are recognized in the consolidated statement of income in the year of retirement or disposal.

Transfers are made to investment properties when, and only when, there is a change in use, evidenced by ending of owner-occupation or commencement of an operating lease to another party. Transfers are made from investment properties when, and only when, there is a change in use, evidenced by commencement of owner-occupation or commencement of development with a view to sale.

Under the cost model, transfers between investment property and owner-occupied property do not change the carrying amount of the property transferred and they do not change the cost of that property for measurement or disclosure purposes.

<u>Impairment of Nonfinancial Assets</u>
Inventories and Long-term Stockpile Inventory
The Group determines the NRV of inventories and long-term stockpile inventory at each end of the financial reporting period. If the cost of the inventories and long-term stockpile inventory exceeds its NRV, the asset is written down to its NRV and impairment loss is recognized in the consolidated statement of income in the year the impairment is incurred. In the case when NRV of the inventories and long-term stockpile inventory increased subsequently, the NRV will increase the carrying amounts of inventories but only to the extent of their original acquisition costs.

Property and Equipment and Nonfinancial Prepayments and Other Current and Noncurrent Assets
The Group assesses, at each end of the financial reporting period, whether there is an indication that an asset may be impaired. Assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If any such indication exists and where the carrying amount of an asset exceeds its recoverable amount, the asset or cash generating unit (CGU) is written down to its recoverable amount. An asset's recoverable amount is the higher of an asset's or CGU's fair value less costs to sell and its value in use. The fair value less costs to sell is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date less the costs of disposal, while value in use is the present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. These calculations are corroborated by valuation multiples or other available fair value indicators. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the CGU to which the asset belongs. Impairment losses are recognized in the consolidated statement of income.

Recovery of impairment loss recognized in prior years is recorded when there is an indication that the impairment losses recognized for the asset no longer exist or have decreased. The recovery is recorded in the consolidated statement of income. However, the increased carrying amount of an asset due to a recovery of an impairment loss is recognized to the extent it does not exceed the carrying amount that would have been determined (net of depreciation, amortization and depletion) had no impairment loss been recognized for that asset in prior years.

Investments in Associates
After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investments in associates. At each end of the financial reporting period, the Group determines whether there is objective evidence that the investments in associates are impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value, and then recognizes the amount in the consolidated statement of income.

Geothermal Exploration and Evaluation Assets and Deferred Mine Exploration Costs
An impairment review is performed, either individually or at the CGU level, when there are indicators that the carrying amount of the assets may exceed their recoverable amounts. To the extent that this occurs, the excess is fully provided against, in the financial reporting period in which this is determined.

Facts and circumstances that would require an impairment assessment as set forth in PFRS 6, *Exploration for and Evaluation of Mineral Resources*, are as follows:
- The period for which the Group has the right to explore in the specific area has expired or will expire in the near future and is not expected to be renewed;
- Substantive expenditure on further exploration and evaluation of mineral resources in the specific area is neither budgeted nor planned;
- Exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the entity has decided to discontinue such activities in the specific area;
- When a service contract where the Group has participating interest in is permanently abandoned; and
- Sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

Geothermal exploration and evaluation assets and deferred mine exploration costs are reassessed for impairment on a regular basis.

Other Current Liability
Other current liability pertains to deposits for future stock subscription which represents advance payments from stockholders for the subscription of future issuance of shares.

The Group classifies its deposits for future stock subscription as a separate account under equity if and only if, all of the following elements are present as at the end of the financial reporting period:
- There is a lack of or insufficiency in unissued authorized capital stock;
- The BOD and stockholders have approved the proposed increase in authorized capital stock; and
- An application for the approval of the proposed increase in authorized capital stock has been presented for filing or has been filed with the SEC.

If any or all of the foregoing elements are not present, the deposits for future stock subscription shall be recognized and included as a separate line item under liabilities in the consolidated statement of financial position.

Leases - Upon Adoption of PFRS 16
The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and ROU assets representing the right to use the underlying assets.

Lease Liabilities
At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees.

The lease payments also include, if any, the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognized as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

Short-term Leases and Leases of Low-value Assets
The Group applies the short-term lease recognition exemption to its short-term leases of property and equipment (i.e., those leases that have a lease term of twelve (12) months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases that are considered of low value. Lease payments on short-term leases and leases of low value assets are recognized as expense on a straight-line basis over the lease term.

Leases - Prior to the Adoption of PFRS 16

Determination of Whether an Arrangement Contains a Lease

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception of the lease. The arrangement is, or contains, a lease if fulfilment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset or assets, even if that right is not explicitly specified in an arrangement.

A reassessment is made after inception of the lease only if one of the following applies:

a) There is a change in contractual terms, other than a renewal or extension of the arrangement;
b) A renewal option is exercised or extension granted, unless that term of the renewal or extension was initially included in the lease term;
c) There is a change in the determination of whether fulfillment is dependent on a specified asset; or
d) There is a substantial change to the asset.

Where a reassessment is made, lease accounting shall commence or cease from the date when the change in circumstances gave rise to the reassessment for scenarios (a), (c) or (d) above, and at the date of renewal or extension period for scenario (b).

Group as a Lessee

Leases where the lessor retains substantially all the risks and benefits of ownership of the asset are classified as operating leases. Operating lease payments are amortized as expense in the consolidated statement of income on a straight-line basis over the lease term.

Group as a Lessor

Leases where the Group retains substantially all the risks and rewards of ownership of the asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income.

Provisions

General

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed at each end of the financial reporting period and adjusted to reflect the current best estimate. The expense relating to any provision is presented in the consolidated statement of income, net of any reimbursement. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as part of "Finance expense" in the consolidated statement of income.

Provision for Mine Rehabilitation and Decommissioning

The Group records the present value of estimated costs of legal and constructive obligations required to restore operating locations in the period in which the obligation is incurred. The nature of these restoration activities includes dismantling and removing structures, rehabilitating mines and tailings dams, dismantling operating facilities, closure of plant and waste sites, and restoration, reclamation and re-vegetation of affected areas. The obligation generally arises when the asset is installed or the ground/environment is disturbed at the production location. When the liability is initially recognized, the present value of the estimated cost is capitalized by increasing the carrying amount of the related mining assets. Over time, the discounted liability is increased for the change in present value based on the discount rates that reflect current market assessments and the risks specific to the liability.

The periodic unwinding of the discount is recognized as part of "Finance expense" in the consolidated statement of income. Additional disturbances or changes in rehabilitation costs will be recognized as additions or charges to the corresponding assets and provision for mine rehabilitation and decommissioning when they occur. When rehabilitation is conducted systematically over the life of the operation, rather than at the time of closure, provision is made for the estimated outstanding continuous rehabilitation work at each end of the financial reporting period and the cost is charged to consolidated statement of income.

The ultimate cost of mine rehabilitation and decommissioning is uncertain and cost estimates can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience. The expected timing of expenditure can also change, for example in response to changes in ore reserves or production rates. As a result, there could be significant adjustments to the provision for mine rehabilitation and decommissioning, which would affect future financial results. For closed sites, changes to estimated costs are recognized immediately in the consolidated statement of income.

MRF committed for use in satisfying environmental obligations are included within "Other noncurrent assets" in the consolidated statement of financial position.

Deferred Income
Deferred income is advance payments received for lease arrangements during one (1) financial reporting period but earned and shown in the consolidated statement of income in the year when it can be matched with the period in which it is realized as income.

Capital Stock
Common shares are classified as equity and are measured at par value for all shares issued and outstanding.

Preferred shares are classified as equity if it is non-redeemable, or redeemable only at the Parent Company's option, and any dividends are discretionary. Dividends thereon are recognized as distributions within equity upon approval by the Parent Company's BOD. Preferred shares are classified as a liability if it is redeemable on a specific date or at the option of the shareholders, or if dividend payments are not discretionary. Dividends thereon are recognized as interest expense in the consolidated statement of income as accrued.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction from proceeds. The excess of proceeds from issuance of shares over the par value of shares are credited to "Additional paid-in capital".

Unpaid subscriptions are recognized as a reduction from subscribed capital shares.

Share-based Payment Transactions
The executives of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments (equity-settled transactions).

The cost of equity-settled transaction is determined by the fair value at the date when the grant is made using the Black Scholes-Merton model. The cost of equity-settled transaction is recognized, together with a corresponding increase in equity, over the period in which the service conditions are fulfilled ending on the date on which the relevant employees become fully entitled to the award ("the vesting date"). The cumulative expense recognized for equity-settled transactions at the end of each financial reporting period until the vesting date reflects the extent to which the vesting period has expired and the Parent Company's best estimate of the number of equity instruments that will ultimately vest.

The charge or credit in the consolidated statement of income for a period represents the movement in cumulative expense recognized as at the beginning and end of that period and are recognized in "Personnel costs".

No expense is recognized for awards that do not ultimately vest.

Where the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

Where an equity-settled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognized for the award is recognized immediately. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of diluted EPS.

<u>Other Comprehensive Income</u>
Other comprehensive income comprises items of income and expense (including items previously presented under the consolidated statement of changes in equity) that are not recognized in the consolidated statement of income for the year in accordance with PFRS.

<u>Retained Earnings</u>
Retained earnings represent the cumulative balance of periodic net income or loss, prior period adjustments, effect of changes in accounting policies in accordance with PAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors* and other capital adjustments, net of any dividend declaration.

Dividends are recognized as a liability and deducted from equity when they are approved or declared by the BOD and/or stockholders. Dividends for the period that are approved after the end of the financial reporting period are dealt with as an event after the end of the financial reporting period.

<u>Treasury Stock</u>
Own equity instruments that are reacquired (treasury stock) are recognized at cost and deducted from equity. No gain or loss is recognized in the consolidated statement of income on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration, if reissued, is recognized in the "Additional paid-in capital".

<u>Basic/Diluted EPS</u>
Basic EPS
Basic EPS is calculated by dividing the net income attributable to ordinary equity holders of the Parent Company by the weighted average number of ordinary shares outstanding, after giving retroactive effect for any stock dividends, stock splits or reverse stock splits during the year.

Diluted EPS
Diluted EPS is calculated by dividing the net income attributable to ordinary equity holders of the Parent Company by the weighted average number of ordinary shares outstanding, adjusted for any stock dividends declared during the year plus weighted average number of ordinary shares that would be issued on the conversion of all the dilutive ordinary shares into ordinary shares, excluding treasury shares.

Revenue from Contracts with Customers
The Group is principally engaged in the business of producing beneficiated nickel ore, limestone and quarry materials, rendering of services and generating revenue from sale of power. Revenue from contracts with customers is recognized when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

The Group has generally concluded that it is the principal in its revenue contracts because it typically controls the goods or services before transferring them to the customer.

Contract Balances
Contract Assets
A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognized for the earned consideration that is conditional. The Group does not have any contract assets as performance and a right to consideration occurs within a short period of time and all rights to consideration are unconditional.

Trade Receivables
A receivable represents the Group's right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due). Refer to accounting policies of financial assets in section "*Financial Assets - Initial Recognition, Classification and Measurement*".

Contract Liabilities
A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

From time to time, the Group recognizes contract liabilities in relation to its sale of ore which are sold under free-on-board (FOB) Incoterms, whereby a portion of the cash may be received from the customer before the loading of ore are completed.

The following specific recognition criteria must also be met before revenue is recognized:

- *Sale of Beneficiated Nickel Ore*
  PAS 18, *Revenue*
  Revenue is recognized when the significant risks and rewards of ownership of the goods have passed to the buyer which, in the case of deliveries other than to CBNC and THNC, coincides with the loading of the ores into the buyer's vessel and the date of the bill of lading issued by the buyer's shipping agent. In the case of deliveries to CBNC and THNC, this occurs at the time the ore passes into the ore preparation hopper of the respective plants. Under the terms of the

arrangements with customers, other than CBNC and THNC, the Group bills the remaining balance, generally at 5% to 20% of the ore shipped, based on the assay results agreed by both the Group and the customers. Where the assay results are not yet available as at the end of the financial reporting period, the Group accrues the remaining 5% to 20% of the revenue based on the amount of the initial billing made. For CBNC and THNC, 100% of the revenue is billed monthly.

PFRS 15, *Revenue from Contracts with Customers*
For the sale of beneficiated nickel ore, limestone and quarry materials, the enforceable contract is each purchase order, which is an individual, short-term contract. Purchase orders are executed through an Addendum to the master supply agreements with customers. While there are master supply agreements with customers that set out the general terms and conditions governing any sales that occur, they do not contain any minimum volumes.

The Group's sale of ore allows price adjustment provision where final ore price shall be based on the final results of the final assay exchange with customer. If the consideration in a contract includes a variable amount, the Group estimates the amount of consideration to which it will be entitled in exchange for transferring the goods to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognized will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

Revenue is recognized when control passes to the customer, which occurs at a point in time when the ore, in the case of deliveries other than to CBNC and THNC, is physically transferred onto a vessel. In the case of deliveries to CBNC and THNC, this occurs at the time the ore passes into the ore preparation hopper of the respective plants. The revenue is measured at the amount to which the Group expects to be entitled, being the estimate of the price expected to be received.

- *Sale of Power*. Revenue from sale of power primarily pertains to sale of electricity to Independent Electricity Market Operator (IEMO), formerly known as Philippine Electricity Market Corporation (PEMC), which are traded through Philippine Wholesale Electricity Spot Market (WESM) and to Surigao Del Norte Electric Cooperative, Inc. (SURNECO).

PAS 18, *Revenue*
Revenue from sale of electricity using solar power is based on sales price and is composed of generation fees from spot sales to the WESM. On the other hand, revenue from sale of electricity using bunker-fired diesel power station is based on rates approved by the ERC. Revenue from sale of power is recognized monthly based on the actual energy delivered.

PFRS 15, *Revenue from Contracts with Customers*
For the sale of power to IEMO, the enforceable contract is the Market Participation Agreement dated February 11, 2016 together with the WESM Rules that implement the provisions of the Electric Power Industry Reform Act (EPIRA) of 2001, its Implementing Rules and Regulations and other related laws. For the sale of power to SURNECO, the enforceable contract is the Power Supply Agreement (PSA) dated October 31, 2013.

The performance obligation is the sale of power since the customer can benefit from it in conjunction with other readily available resources and it is also distinct within the context of the contract. The performance obligation qualifies as a series of distinct goods or services that are substantially the same and have the same pattern of transfer.

The Group concluded that revenue should be recognized over time since the customer simultaneously receives and consumes the benefits as the Group supplies power.

The sale of power to IEMO provides an unspecified quantity of energy. The unit price for the sale of power is also determined at each trading interval of each day. Such provisions under PFRS 15 give rise to variable consideration. The variable consideration is estimated at contract inception and constrained until the associated uncertainty is subsequently resolved. The application of constraint on variable consideration resulted in the same revenue recognition under PAS 18.

Rendering of Services
Revenue from rendering of services consists of shipsiding activities, service fees, usage fees, assaying fees, drilling fees and materials handling fees are recognized when the services are rendered. The performance obligations are satisfied and payment is generally due upon completion and billing of the services. Revenue is recognized over time and units of delivery output method is the measure of progress since the customer obtains the benefit from the Group's performance based on the quantities and volume of materials handled each month.

Interest
Income is recognized as interest accrues (using the EIR method that is the rate that exactly discounts estimated future cash receipts through the expected life of the financial instrument to the net carrying amount of the financial asset).

Dividend
Dividend income is recognized when the Group's right to receive payment is established.

Rental
Revenue is recognized based on a straight-line basis over the term of the lease agreement. Revenue from capital recovery fee of the diesel power plant is also recognized on a straight-line basis over the term of the PSA.

Other Income
Revenue is recognized in the consolidated statement of income as they are earned.

Cost and Expense Recognition
Cost and expenses are decreases in economic benefits during the financial reporting period in the form of outflows or decrease of assets or incurrence of liabilities that result in decrease in equity, other than those relating to distributions to equity participants. Cost and expenses, finance expenses and other charges are generally recognized when the expense arises, incurred or accrued in the appropriate period.

Cost of Sales
Cost of sales is incurred in the normal course of business and is recognized when incurred. They comprise mainly of cost of goods sold, which are provided in the period when goods are delivered.

Cost of Power Generation
Cost of power generation using solar energy and diesel include expenses incurred directly for the generation of revenues from power at operating project locations. Cost of power generation are expensed when incurred.

Cost of Services
Cost of services is incurred in the normal course of business and is provided in the period when the related service has been rendered.

Operating Expenses
Operating expenses consist of costs associated with the development and execution of marketing and promotional activities, excise taxes and royalties due to the government and to indigenous people, costs of shipping and loading which are expenses incurred in connection with the distribution of ores, and expenses incurred in the direction and general administration of day-to-day operation of the Group. These are generally recognized when the expense arises.

Pension Costs
The net defined benefit liability or asset is the aggregate of the present value of the pension liability at the end of the financial reporting period reduced by the fair value of plan assets, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling. The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The cost of providing benefits under the defined benefit plans is actuarially determined using the projected unit credit method. This method reflects service rendered by employees to the date of valuation and incorporates assumptions concerning the employees' projected salaries.

Defined benefit costs comprise the following:
- Service cost;
- Net interest on the net defined benefit liability or asset; and
- Remeasurements of net defined benefit liability or asset.

Service costs which include current service costs, past service costs and gains or losses on non-routine settlements are recognized as pension costs under "Personnel costs" in the consolidated statement of income. Past service costs are recognized when plan amendment or curtailment occurs. These amounts are calculated periodically by independent qualified actuaries.

Net interest on the net defined benefit liability or asset is the change during the period in the net defined benefit liability or asset that arises from the passage of time which is determined by applying the discount rate based on government bonds to the net defined benefit liability or asset. Net interest on the net defined benefit liability or asset is recognized and included under "Finance expense" or "Finance income" in the consolidated statement of income.

Remeasurements comprising actuarial gains and losses, return on plan assets and any change in the effect of the asset ceiling (excluding net interest on defined benefit liability) are recognized immediately in other comprehensive income in the period in which they arise. Remeasurements are not reclassified to consolidated statement of income in subsequent periods. Remeasurements recognized in other comprehensive income after the initial adoption of Revised PAS 19 are closed to retained earnings.

Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the creditors of the Group, nor can they be paid directly to the Group. Fair value of plan assets is based on market price information. When no market price is available, the fair value of plan assets is estimated by discounting expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligations).

If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The Group’s right to be reimbursed of some or all of the expenditure required to settle a defined benefit obligation is recognized as a separate asset at fair value when and only when reimbursement is virtually certain.

Income Taxes

Current Income Tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The income tax rates and income tax laws used to compute the amount are those that are enacted or substantively enacted at the end of the financial reporting period. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretations and establishes provisions where appropriate.

Deferred Income Tax

Deferred income tax is provided using the balance sheet liability method on temporary differences at the end of the financial reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognized for all taxable temporary differences, except:

- Where the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable income or loss; and
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets are recognized for all deductible temporary differences, carryforward benefits of unused tax credits and unused tax losses, to the extent that it is probable that sufficient taxable income will be available against which the deductible temporary differences, and the carryforward benefits of unused tax credits and unused tax losses can be utilized except:

- Where the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting income nor taxable income or loss; and
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred income tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred income tax assets is reviewed at each end of the financial reporting period and reduced to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred income tax asset to be utilized. Unrecognized deferred income tax assets are reassessed at each end of the financial reporting period and are recognized to the extent that it has become probable that future taxable profit will allow the deferred income tax asset to be recovered.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realized or the liability is settled, based on income tax rates (and income tax laws) that have been enacted or substantively enacted as at the end of the financial reporting period.

Deferred income tax relating to items recognized outside the consolidated statement of income is recognized outside the consolidated statement of income. Deferred income tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred income tax assets and deferred income tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred income taxes relate to the same taxable entity and the same taxation authority.

Uncertainty Over Income Tax Treatments

The Group assesses at the end of each financial reporting period whether it has any uncertain tax treatments by reviewing the assumptions about the examination of tax treatments by the taxation authority, determining taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, and considering changes in relevant facts and circumstances. The Group then evaluates how likely is it that a certain tax treatment will be accepted by the taxation authority. If it is probable that the taxation authority will accept a certain tax treatment, the Group concludes that it has no uncertain tax treatment and will measure tax amounts in line with the income tax filings. If it is not probable that the taxation authority will accept a certain tax treatment, the Group measures tax amounts based on the 'most likely amount' method (better predicts uncertainty if the possible outcomes are binary or are concentrated on one value) or 'expected value' method (better predicts uncertainty if there is a range of possible outcomes that are neither binary nor concentrated on one value). The Group presents uncertain tax liabilities as part of current income tax liabilities or deferred income tax liabilities.

Business Segments

For management purposes, the Group is organized into operating segments (mining, power and services) according to the nature of the products and the services provided, with each segment representing a strategic business unit that offers different products and serves different markets.

The segment locations are the basis upon which the Group reports its primary segment information for the mining segment. All of the segments operate and generate revenue only in the Philippines. Financial information on business segments is presented in Note 43.

Contingencies

Contingent liabilities are not recognized in the consolidated financial statements. These are disclosed in the notes to consolidated financial statements unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognized in the consolidated financial statements but are disclosed when an inflow of economic benefits is probable.

Events after the End of the Financial Reporting Period

Post year-end events that provide additional information about the Group's position at each end of the financial reporting period (adjusting events) are reflected in the consolidated financial statements. Post year-end events that are not adjusting events are disclosed in the notes to the consolidated financial statements when material.

3. **Significant Accounting Judgments, Estimates and Assumptions**

The consolidated financial statements prepared in accordance with PFRS requires management to make judgments, estimates and assumptions that affect the amounts reported in the consolidated financial statements and related notes. Future events may occur which will cause the assumptions used in arriving at the estimates to change. The effects of any change in estimates are reflected in the consolidated financial statements as they become reasonably determinable.

Judgments, estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual outcome can differ from these estimates.

Judgments
In the process of applying the Group's accounting policies, management has made the following judgments, apart from those involving estimations, which has the most significant effect on the amounts recognized in the consolidated financial statements:

Determining Functional Currency
Based on the economic substance of the underlying circumstances relevant to the Group, the functional currency of the Parent Company and its subsidiaries, except CPDL, has been determined to be the Philippine peso. The functional currency is the currency of the primary economic environment in which the Group operates. It is the currency that mainly influences labor, material and other costs of providing goods and services.

Classifying Financial Instruments
The Group classifies a financial instrument, or its component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual agreement and the definitions of a financial asset, a financial liability or an equity instrument. The substance of the financial instrument, rather than its legal form, governs its classification in the consolidated statements of financial position.

Assessing Production Start Date
The Group assesses the stage of each mine development project to determine when a mine moves into the production stage. The criteria used to assess the start date of a mine are determined based on the unique nature of each mine development project. The Group considers various relevant criteria to assess when the mine is substantially complete, ready for its intended use and moves into the production phase.

Some of the criteria include, but are not limited to the following:
- The level of capital expenditure compared to construction cost estimates;
- Completion of a reasonable period of testing of the property and equipment;
- Ability to produce ore in saleable form; and
- Ability to sustain ongoing production of ore.

When a mine development project moves into the production stage, the capitalization of certain mine construction costs ceases and costs are either regarded as inventory or expensed, except for capitalizable costs related to mining asset additions or improvements, mine development or mineable reserve development. It is also at this point that depreciation or depletion commences.

Assessing Units-of-Production Depletion
Estimated recoverable reserves are used in determining the depletion of mine assets. This results in a depletion charge proportional to the depletion of the anticipated remaining mine life. Each item's life, which is assessed annually, has regard to both physical life limitations and to present assessments of economically recoverable reserves of the mine property at which the asset is located. The calculations require the use of estimates of future capital expenditure. The Group uses the tons of ore produced as the basis for depletion. Any change in estimates is accounted for prospectively.

Determining Whether Significant Influence Exists
The Parent Company recognized its ownership interest in THNC and CBNC as investments in associates. In accordance with the provisions of PAS 28 (2011), *Investments in Associates and Joint Ventures,* the existence of significant influence by an entity is usually evidenced in one or more of the following ways:
- Participation in policy-making processes through its representation on the BOD; or
- Material transactions between the entity and its investee such as the supply of all the nickel ore and limestone requirement of the investee and/or the use of the Group's land and infrastructure necessary for the production of the products of the investee.

Due to the nature of the Parent Company's involvement in THNC and CBNC and other various factors, the Parent Company assessed that significant influence exists (see Note 10).

Determining Capitalizability of Geothermal Exploration and Evaluation Assets and Deferred Mine Exploration Costs
Careful judgment by management is applied when deciding whether the recognition requirements for geothermal exploration and evaluation assets and deferred mine exploration costs relating to the Group's geothermal and mining projects have been met. Capitalization of these costs is based, to a certain extent, on management's judgment of the degree to which the expenditure may be associated with finding specific geothermal and ore reserve. This is necessary as the economic success of the exploration is uncertain and may be subject to future technical problems at the time of recognition. Judgments are based on the information available at the end of each financial reporting period.

Determining Applicability of IFRIC 12, Service Concession Arrangements on the Solar Energy Service Contract (SESC) and PSA with SURNECO
An arrangement would fall under IFRIC 12 if the two conditions below are met:
a) the grantor controls or regulates the services that the operator must provide using the infrastructure, to whom it must provide them, and at what price, and
b) the grantor controls any significant residual interest in the property at the end of the concession term through ownership, beneficial entitlement or otherwise.

The infrastructure used for its entire useful life ('whole of life assets') is within the scope of IFRIC 12 if the arrangement meets the conditions in (a).

However, based on management's judgment, the SESC entered into by Jobin is outside the scope of IFRIC 12 since Jobin controls the significant residual interest in the properties at the end of the concession term through ownership. For the PSA with SURNECO, management assessed that it is also outside the scope of IFRIC 12 since SURNECO does not control or regulates the services of the operator, which is the Parent Company, in using the power plant including its pricing.

Operating Lease - Parent Company as the Lessor
In accounting for its PSA with SURNECO, the Group's management has made a judgment that the PSA is an arrangement that contains a lease. The Parent Company has not transferred substantially all the risks and rewards incidental to the ownership of the power plant principally by virtue of its

right to control the capacity of power plant and its right to transfer the power plant at the end of the PSA for no consideration. Accordingly, the Group accounted for the agreement as an operating lease. The capacity fees billed to SURNECO are recorded as operating revenue based on the terms of the PSA.

Determining the Lease Term of Contracts with Renewal and Termination Options - Group as Lessee (Under PFRS 16)
The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised.

The Group has several lease contracts that include extension and termination options. The Group applies judgement in evaluating whether it is reasonably certain whether or not to exercise the option to renew or terminate the lease. That is, it considers all relevant factors that create an economic incentive for it to exercise either the renewal or termination. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate (e.g. construction of significant leasehold improvements or significant customization to the leased asset).

The renewal periods for the lease of the land and buildings and improvements are not included as part of the lease term as this is not reasonably certain to be exercised. Furthermore, the periods covered by termination options, if any, are included as part of the lease term only when they are reasonably certain not to be exercised.

Identifying the Enforceable Contract
Sale of Beneficiated Nickel Ore
The Group made an irrevocable and firm commitment to sell nickel ore on FOB of mother vessel terms, while the buyer made an irrevocable and firm commitment to purchase the quantity of the nickel ore under the terms and conditions specified and agreed upon in the contract. Throughout the year, the parties executed addendums to the contract to deliver nickel ore with quantity and specifications indicated therein.

The Group executed a five (5)-year contract with Pacific Metals Co., Ltd. (PAMCO), where the former expressed its wish to sell to the latter all beneficiated nickel saprolite ore which meets the specifications as stated in the contract.

For the above arrangements, the enforceable contracts have been determined to be the annual and long-term contracts and the addendums thereon. While there are master supply agreements with customers that set out the general terms and conditions governing any sales that occur, they do not contain any minimum volumes. Therefore, for above arrangements, the enforceable contracts have been determined to be the annual and long-term contracts and the addendum thereon.

Sale of Quarry Materials
TMC entered into a Materials Supply Agreement (MSA) with THNC to sell and deliver construction materials and THNC to purchase and take delivery of rock, sand, gravel and available laterite near the area to be used for the expansion of their tailing storage facility which is part of the auxiliary facility of their HPP project. The enforceable contracts have been determined to be each purchase order and the MSA.

Rendering of Services
The Group and its customers entered into various service agreements, such as materials handling services and power supply, that sets out the general terms and conditions governing each services that occur. The Group has the experience, expertise, equipment, facilities, and personnel required for the services needed and the customers recognizes the capability of Group and hires its services under the terms and conditions specified and agreed upon in the contract. Therefore, the enforceable contracts are the service and/or PSAs entered into with different customers.

Identifying Performance Obligations
The Group identifies performance obligations by considering whether the promised goods or services in the contract are distinct goods or services. A good or service is distinct when the customer can benefit from the good or service on its own or together with other resources that are readily available to the customer and the Group's promise to transfer the good or service to the customer is separately identifiable from the other promises in the contract.

The Group assesses performance obligations as a series of distinct goods and services that are substantially the same and have the same pattern of transfer if: i) each distinct good or services in the series are transferred over time, and ii) the same method of progress will be used (i.e., units of delivery) to measure the entity's progress towards complete satisfaction of the performance obligation.

With regards to the sale of beneficiated nickel ore and limestone, the Group and its buyers agree to respectively sell and purchase a specific quantity of nickel ore and limestone during the term of the sales contracts. This performance obligation is a promise to transfer to the buyer distinct goods (i.e. nickel ore and limestone) that shall be satisfied at a point in time. It is capable of being distinct since the customers can benefit from it in conjunction with other readily available resources. It is distinct within the context of the sales contracts because it is not integrated, not highly interdependent on or highly interrelated with other promised services in the contract. The obligation is to transfer nickel ore and limestone which shall be satisfied once the control to the goods has been transferred to the buyer at a point in time.

For the sale of quarry materials, TMC and THNC agree to sell and purchase a specific quantity of quarry materials during the term of each purchase order and the MSA. The performance obligation is a promise to transfer to THNC distinct goods (i.e. rock, sand, gravel and available laterite) that shall be satisfied at a point in time. It is capable of being distinct since the customers can benefit from it in conjunction with other readily available resources. It is distinct within the context of each purchase order and MSA because it is not integrated, not highly interdependent on or highly interrelated with other promised services in the contract. The obligation is to transfer quarry materials which shall be satisfied once the control to the goods has been transferred to the buyer at a point in time.

With regards to the sale of power, it is considered as a performance obligation since the customer can benefit from it in conjunction with other readily available resources and it is also distinct within the context of the contract.

The performance obligation qualifies as a series of distinct goods or services that are substantially the same and have the same pattern of transfer since the delivery of energy every month are distinct services which are all recognized over time and have the same measure of progress.

Determining Method to Estimate Variable Consideration and Assessing the Constraint
The Group assessed that it has variable consideration pertaining to quantity of ore shipped to customer. The variability arises from the uncertainty of final quantity and is assessed based on preliminary assay which is the Group's estimate of the most likely amount that is not highly probable to result in a significant reversal in cumulative revenue recognized when final assay is completed.

The Group's sale of power to IEMO provide unspecified quantity of energy and unspecified unit price that give rise to variable consideration. In estimating the variable consideration, the Group is required to use either the expected value method or the most likely amount method based on which method better predicts the amount of consideration to which it will be entitled. The expected value method of estimation takes into account a range of possible outcomes while the most likely amount is used when the outcome is binary. The Group determined that the expected value method is the appropriate method to use in estimating the variable consideration given the large range of possible outcomes.

Before including any amount of variable consideration in the transaction price, the Group considers whether the amount of variable consideration is constrained. The Group determined that the estimates of variable consideration are to be fully constrained based on its historical experience (i.e., volume and unit price), the range of possible outcomes (i.e., unspecified quantity of energy and unspecified unit price), and the unpredictability of other factors outside the Group's influence.

Allocating Variable Consideration
Variable consideration may be attributable to the entire contract or to a specific part of the contract. For the revenue from sale of power which is considered as series of distinct goods or services that are substantially the same and have the same pattern of transfer, the Group allocates the variable amount that is no longer subject to constraint to the satisfied portion (i.e., month) which forms part of the single performance obligation, and forms part of the monthly billing of the Group.

Determining the Timing of Satisfaction
The Group recognizes revenue when it satisfies an identified performance obligation by transferring a promised good or service to a customer. A good or service is considered to be transferred when the customer obtains control. The Group determines, at contract inception, whether it will transfer control of a promised good or service over time. If the Group does not satisfy a performance obligation over time, the performance obligation is satisfied at a point in time.

The Group concluded that revenue from sale of power are to be recognized over time since customers simultaneously receives and consumes the benefits as the Group supplies power.

The sale of ore, limestone and quarry materials are satisfied at a point in time. All risk of loss, damage or destruction respective of the ore delivered shall progressively pass to the buyer at the time the ore passes over the rail and into the vessel while risk of loss and damage for the limestone delivered passed to the buyer at the time the good is delivered to the buyer's plant. In case of deliveries to CBNC and THNC title, risk of loss and damage passed to the buyer at the time the ore passes into the ore preparation hopper of the respective plants and. Moreover, the risk of loss and damage is also passed to the buyer at the time the quarry materials have been delivered to each delivery point.

For rendering of services, it is satisfied over time since the customer obtains the benefit simultaneously with the Group's performance of services. The fact that another entity would not need to re-perform the handling services that the Group has provided to date demonstrates that the customer simultaneously receives and consumes the benefits of the Group's performance as it performs.

Identifying Methods for Measuring Progress of Revenue Recognized over Time
The Group determines the appropriate method of measuring progress which is either through the use of input or output methods. Input method recognizes revenue on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation while output method recognizes revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date.

For sale of power, the Group determined that the output method is the best method in measuring progress since actual electricity is supplied to customers. The Group recognizes revenue based on the actual energy dispatched billed at the spot price calculated during the trading interval which is a one (1) hour period commencing on the hour or based on the rates approved by the ERC.

Determining the Group's Business Model
The Group's business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective. The Group's business model does not depend on management's intentions for an individual instrument.

The Group's business model refers to how it manages its financial assets in order to generate cash flows. The Group's business model determines whether cash flows will result from collecting contractual cash flows, selling financial assets or both. Relevant factors considered by the Group in determining the business model for a group of financial assets include how the performance of the business model and the financial assets held within that business model are evaluated and reported to the Group's key management personnel, the risks that affect the performance of the business model (and the financial assets held within that business model) and how these risks are managed and how managers of the business are compensated.

Defining Default and Credit-Impaired Financial Assets
The Group defines a financial instrument as in default, which is fully aligned with the definition of credit impaired, when it meets one or more of the following criteria:

- *Quantitative Criteria.* The borrower is more than thirty (30) days past due on its contractual payments, which is consistent with the Group's definition of default.
- *Qualitative Criteria.* The borrower meets unlikeliness to pay criteria, which indicates the borrower is in significant financial difficulty. These are instances where:
  a. The borrower is experiencing financial difficulty or is insolvent;
  b. The borrower is in breach of financial covenant(s);
  c. An active market for that financial assets has disappeared because of financial difficulties;
  d. Concessions have been granted by the Group, for economic or contractual reasons relating to the borrower's financial difficulty;
  e. It is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
  f. Financial assets are purchased or originated at a deep discount that reflects the incurred credit losses.

The criteria above have been applied to all financial instruments held by the Group and are consistent with the definition of default used for internal credit risk management purposes. The default definition has been applied consistently to model the PD, LGD and EAD throughout the Group's ECL calculation.

An instrument is no longer in default (i.e. to have cured) when it no longer meets any of the default criteria.

Identifying Forward Looking Information
In its ECL models, the Group relies on forward looking information as economic inputs, such as:
- Dollar index rate
- Gross Domestic Product (GDP) growth
- Inflation rates

Predicted relationship between the key indicators and default and loss rates on portfolios of financial assets have been developed based on analyzing historical data over the past five (5) years. The methodologies and assumptions including any forecasts of future economic conditions are reviewed regularly.

The inputs and models used for calculating ECLs may not always capture all characteristics of the market at the end of the financial reporting period. To reflect this, qualitative adjustments or overlays are occasionally made as temporary adjustments when such differences are significantly material.

Determining Significant Increase in Credit Risk
The criteria for determining whether credit risk has increased significantly vary and include quantitative changes in PDs and qualitative factors, including a backstop based on delinquency.

Using its expert credit judgement and, where possible, relevant historical experience, the Group may determine that an exposure has undergone a significant increase in credit risk based on qualitative indicators that it considers are indicative of such and whose effect may not otherwise be fully reflected in its quantitative analysis on a timely basis. As a backstop, the Group considers that a significant increase in credit risk occurs no later than when an asset is more than thirty (30) days past due. Days past due are determined by counting the number of days since the earliest elapsed due date in respect of which full payment has not been received. Due dates are determined without considering any grace period that might be available to the related party/customer.

The Group monitors the effectiveness of the criteria used to identify significant increases in credit risk by regular reviews to confirm that:
- the criteria can identify significant increase in credit risk before an exposure is in default;
- the criteria do not align with the point in time when an asset becomes thirty (30) days past due; and
- there is no unwarranted volatility in loss allowance from transfers between twelve (12)-month PD (stage 1) and lifetime PD (stage 2).

Exposures that have not deteriorated significantly since origination, or where the deterioration remains within the Group's investment grade criteria, or which are less than thirty (30) days past due, are considered to have a low credit risk. The provision for ECL for these financial assets is based on a twelve (12)-month ECL. The low credit risk exemption has been applied on debt investments that meet the investment grade criteria of the Group from the time of origination.

An exposure will migrate through the ECL stages as asset quality deteriorates. If, in a subsequent period, asset quality improves and also reverses any previously assessed significant increase in credit risk since origination, then the loss allowance measurement reverts from lifetime ECL to twelve (12)-month ECL.

Estimates and Assumptions

The key estimates and assumptions concerning the future and other key sources of estimation uncertainty as at the end of the financial reporting period, that have the most significant risk of causing a material adjustment to the carrying amounts of assets within the next financial year are as follows:

Estimating Ore Reserves

Ore reserves are estimates of the amount of ore that can be economically and legally extracted from the Group's mining properties. The Group estimates its ore reserves based on information compiled by appropriately qualified persons relating to the geological data on the size, depth and shape of the ore body, and requires complex geological judgments to interpret the data. The estimation of recoverable reserves is based upon factors such as estimates of foreign exchange rates, commodity prices, future capital requirements, and production costs along with geological assumptions and judgments made in estimating the size and grade of the ore body. Changes in the reserve or resource estimates may impact upon the carrying values of property and equipment, provision for mine rehabilitation and decommissioning, recognition of deferred income tax assets and depreciation and depletion charges.

The Group also makes estimates and assumptions regarding a number of economic and technical factors, such as production rates, grades, production and transport costs and prices. These economic and technical estimates and assumptions may change in the future in ways that affect the quality and quantity of the reserves. The Group reviews and updates estimates as required, but at least annually, to reflect actual production, new exploration data or developments and changes in other assumptions or parameters. These estimates will change from time to time to reflect mining activities, analyses of new engineering and geological data, changes in ore reserve and mineral resource holdings, modifications of mining plans or methods, changes in nickel or limestone prices or production costs and other factors.

Estimating Recoverability of Geothermal Exploration and Evaluation Assets and Deferred Mine Exploration Costs

The application of the Group's accounting policy for geothermal exploration and evaluation assets and deferred mine exploration costs requires judgment in determining whether it is likely that future economic benefits are certain, which may be based on assumptions about future events or circumstances. Estimates and assumptions made may change if new information becomes available. If, after exploration costs are capitalized, information becomes available suggesting that the recovery of expenditure is unlikely, the amount capitalized is written off in the consolidated statement of income in the period when the new information becomes available. An impairment loss is recognized when the carrying value of those assets is not recoverable and exceeds their fair value.

The carrying values of geothermal exploration and evaluation assets amounted to ₱1,811.7 million and ₱1,793.4 million as at December 31, 2019 and 2018, respectively (see Note 11).

Deferred mine exploration costs, included in "Other noncurrent assets" in the consolidated statements of financial position, as at December 31, 2019 and 2018 amounted to ₱1,313.5 million and ₱1,244.8 million, respectively (net of allowance for impairment losses of ₱143.6 million as at December 31, 2019 and 2018; see Note 13).

Estimating Allowance for Impairment Losses on Solar Project and Construction In-Progress
The Group is adversely affected by the continued decline in wholesale electricity prices. In the event that an impairment indicator is identified, the assessment of the recoverable amount of the solar project and construction in-progress related to solar farms and geothermal projects, requires significant judgment and is based on assumptions. The carrying value of the Group's solar project and construction in-progress recorded as property and equipment as at December 31, 2019 and 2018 are disclosed in Note 9 to the consolidated financial statements.

The factors that the Group considers important which could trigger an impairment review include the following:
- Significant underperformance relative to expected historical or projected future operating results;
- Significant changes in the manner of use of the acquired assets or the strategy for overall business; and
- Significant negative industry or economic trends.

In determining the present value of estimated future cash flows expected to be generated from the continued use of the assets, the Group is required to make estimates and assumptions that can materially affect the consolidated financial statements.

These assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss would be recognized whenever evidence exists that the carrying value is not recoverable. For purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows.

An impairment loss is recognized and charged to profit or loss if the discounted expected future cash flows are less than the carrying amount. Fair value is estimated by discounting the expected future cash flows using a discount factor that reflects the market rate for a term consistent with the period of expected cash flows. As at December 31, 2019 and 2018, the Group has not provided any allowance for impairment losses on its property and equipment. In 2017, machinery and equipment, including the dump trucks which became inoperational and with allowance for impairment losses in 2016, were sold, thus the Group reversed the previously recognized allowance for impairment losses related to these assets (see Note 31).

Estimating Allowance for ECL on Trade and Other Receivables
The Group uses a provision matrix to calculate ECLs for trade and other receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns.

The provision matrix is initially based on the Group's historical observed default rates. The Group calibrates the matrix to adjust the historical credit loss experience with forward-looking information. At every end of the financial reporting period, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade and other receivables is disclosed in Note 5.

Calculating ECL
The Group calculates ECLs based on unbiased and a three (3) probability-weighted scenarios to measure the expected cash shortfalls, discounted at an approximation to the EIR. A cash shortfall is the difference between the cash flows that are due to an entity in accordance with the contract and the cash flows that the entity expects to receive.

The mechanics of the ECL calculations are outlined below and the key elements are, as follows:

- PD is an estimate of the likelihood of default over a given time horizon. A default may only happen at a certain time over the assessed period, if the facility has not been previously derecognized and is still in the portfolio.
- EAD is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the financial reporting period, including repayments of principal and interest, whether scheduled by contract or otherwise, expected drawdowns on committed facilities, and accrued interest from missed payments.
- LGD is an estimate of the loss arising in the case where a default occurs at a given time. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, including from the realization of any collateral. It is usually expressed as a percentage of the EAD.

When estimating the ECLs, the Group considers three scenarios (a base case, a best case, and a worst case). Each of these is associated with different PDs, EADs and LGDs. When relevant, the assessment of multiple scenarios also incorporates how defaulted loans are expected to be recovered, including the probability that the loans will cure and the value of collateral or the amount that might be received for selling the asset. The maximum period for which the credit losses are determined is the contractual life of a financial instrument unless the Group has the legal right to call it earlier.

Estimating Allowance for Impairment Losses on Inventories
The Group maintains allowance for inventory losses at a level considered adequate to reflect the excess of cost of inventories over their NRV. NRV tests are performed at least annually and represent the estimated future sales price of the product based on prevailing spot metals prices at the end of the financial reporting period, less estimated costs to complete production and bring the product to sale. Stockpiles are measured by estimating the number of tonnes added and removed from the stockpile and the number of contained nickel ore ounces based on assay data. Stockpile tonnages are verified by periodic surveys. NRV test for materials and supplies is also performed annually and it represents the current replacement cost. Increase in the NRV of inventories will increase the cost of inventories but only to the extent of their original production costs.

As at December 31, 2019 and 2018, inventories carried at lower of cost and NRV amounted to ₱3,995.4 million and ₱3,744.3 million, respectively (net of allowance for inventory losses of ₱114.5 million and ₱102.9 million as at December 31, 2019 and 2018, respectively; see Note 6).

Estimating Recoverability of Long-term Stockpile Inventory
The determination of the Group's long-term stockpile inventory include among others, projected revenues and operating and delivering costs from the sale of the long-term stockpile. Actual results that differ from the Group's assumptions generally affect the Group's recognized expense. The long-term stockpile inventory is carried at the lower of cost and NRV. An allowance for inventory losses is recognized when the carrying value of the asset is not recoverable and exceeds the NRV. Long-term stockpile inventory - net of current portion amounted to ₱105.6 million as at December 31, 2019 and 2018, respectively (see Note 12).

Estimating Useful Lives of Property and Equipment (except Land)
The Group estimates the useful lives of property and equipment, except land, based on the period over which the assets are expected to be available for use. The estimated useful lives of property and equipment are reviewed periodically and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limits on the use of the assets. In addition, estimation of the useful lives of property and equipment is based on collective assessment of industry practice, internal technical evaluation and experience with similar assets. It is possible, however, that future results of operations could be materially affected by changes in estimates brought about by changes in factors mentioned above.

The amounts and timing of recorded expenses for any period would be affected by changes in these factors and circumstances. There is no change in the estimated useful lives of property and equipment in 2019 and 2018.

The carrying values of property and equipment except land and construction in-progress amounted to ₱9,265.9 million and ₱8,339.6 million as at December 31, 2019 and 2018, respectively (net of accumulated depreciation, amortization and depletion of ₱11,993.6 million and ₱10,723.2 million, respectively; see Note 9).

Estimating Allowance for Impairment Losses on Investments in Associates
Impairment review on investments in associates are performed when events or changes in circumstances indicate that the carrying value exceeds its fair value. If any such indication exists and where the carrying value exceeds the estimated recoverable amount, the investment is written down to its recoverable amount. Management has determined that there are no events or changes in circumstances in 2019 and 2018 that may indicate that the carrying value of investments in associates may not be recoverable. No impairment loss was recognized on investments in associates in 2019 and 2018. The carrying values of the Group's investments in associates amounted to ₱3,259.7 million and ₱3,540.6 million as at December 31, 2019 and 2018, respectively (see Note 10).

Estimating Allowance for Impairment Losses on Nonfinancial Other Assets
The Group provides allowance for impairment losses on nonfinancial other assets when they can no longer be realized. The amounts and timing of recorded expenses for any period would differ if the Group made different judgments or utilized different estimates. An increase in allowance for impairment losses would increase recorded expenses and decrease other assets.

The carrying values of nonfinancial prepayments and other current assets amounted to ₱393.4 million and ₱455.5 million as at December 31, 2019 and 2018, respectively, while nonfinancial other noncurrent assets amounted to ₱2,859.0 million and ₱2,665.1 million as at December 31, 2019 and 2018, respectively (see Notes 8 and 13).

The allowance for impairment losses on the Group's nonfinancial prepayments and other current assets amounted to ₱570.0 million and ₱570.2 million as at December 31, 2019 and 2018, respectively (see Note 8). The allowance for impairment losses on the Group's nonfinancial other noncurrent assets as at December 31, 2019 and 2018 amounted to ₱250.1 million and ₱249.4 million, respectively (see Note 13).

Estimating the Incremental Borrowing Rate of the Leases
The Group cannot readily determine the interest rate implicit in the lease, therefore, it uses its incremental borrowing rate to measure lease liabilities. The incremental borrowing rate is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the ROU assets in a similar economic environment. The incremental borrowing rate therefore reflects what the Group 'would have to pay',

which requires estimation when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease. The Group estimates the incremental borrowing rate using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the Group's stand-alone credit rating).

The Group's lease liabilities amounted to ₱606.7 million as at December 31, 2019 (see Note 35). The incremental borrowing rate used in 2019 ranges from 8.02% to 9.03%.

Estimating Provision for Mine Rehabilitation and Decommissioning
The Group assesses its provision for mine rehabilitation and decommissioning annually. Significant estimates and assumptions are made in determining the provision for mine rehabilitation as there are numerous factors that will affect the provision. These factors include estimates of the extent and costs of rehabilitation activities, technological changes, regulatory changes, cost increases and changes in discount rates. Those uncertainties may result in future actual expenditure differing from the amounts currently provided.

The provision at the end of the financial reporting period represents management's best estimate of the present value of the future rehabilitation costs required. Changes to estimated future costs are recognized in the consolidated statement of financial position by adjusting the rehabilitation asset and liability. For closed sites, changes to estimated costs are recognized immediately in the consolidated statement of income.

Provision for mine rehabilitation and decommissioning amounted to ₱493.7 million and ₱274.2 million as at December 31, 2019 and 2018, respectively (see Note 16).

Determining Pension Benefits
The cost of defined benefit retirement as well as the present value of the pension liability is determined using actuarial valuations. The actuarial valuation involves making various assumptions, as described in Note 36. These include the determination of the discount rates and future salary increases. Due to the complexity of the valuation, the underlying assumptions and its long-term nature, defined benefit pension liability are highly sensitive to changes in these assumptions. In determining the appropriate discount rate, management considers the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, with extrapolated maturities corresponding to the expected duration of the defined benefit pension liability. All assumptions are reviewed at each end of the financial reporting period. While management believes that its assumptions are reasonable and appropriate, significant differences in actual experience or significant changes in the assumptions may materially affect the Group's pension liability.

As at December 31, 2019 and 2018, pension asset included under "Other noncurrent assets" in the consolidated statements of financial position amounted to ₱5.4 million and ₱7.2 million, respectively, and pension liability amounted to ₱393.2 million and ₱327.9 million, respectively (see Notes 13 and 36).

Estimating Fair Value of Share-based Payment Transactions
The Parent Company's Executive Stock Option Plan (ESOP) grants qualified participants the right to purchase common shares of the Parent Company at a grant price. The ESOP recognizes the services received from the eligible employees and an equivalent adjustment to the equity account over the vesting period. The Parent Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant.

This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield. The assumptions and models used for estimating the fair value of share-based payment transactions are disclosed in Note 19. While management believes that the estimates and assumptions used are reasonable and appropriate, significant differences in actual experience or significant changes in the estimates and assumptions may no longer affect the stock compensation costs charged to operations.

The cost of share-based payment plan recognized as expense in 2019, 2018 and 2017, with a corresponding charge to the equity account, amounted to ₱130.5 million, ₱102.4 million and ₱11.0 million, respectively (see Notes 19 and 27). As at December 31, 2019 and 2018, the cost of share-based payment plan in the equity section of the consolidated statements of financial position amounted to ₱370.5 million and ₱240.0 million, respectively (see Note 19).

Estimating Recoverability of Deferred Income Tax Assets
The Group reviews the carrying amounts of deferred income tax assets at each end of the financial reporting period and reduces the amounts to the extent that it is no longer probable that sufficient future taxable income will be available to allow all or part of the deferred income tax assets to be utilized. The Group has deferred income tax assets amounting to ₱498.3 million and ₱336.0 million as at December 31, 2019 and 2018, respectively (see Note 37).

As at December 31, 2019 and 2018, the Group has temporary difference amounting to ₱1,774.8 million and ₱2,128.0 million, respectively, for which no deferred income tax assets were recognized because it is more likely than not that the carryforward benefits will not be realized in the future (see Note 37).

Determining Fair Values of Financial Instruments
Where the fair values of financial assets and liabilities recorded in the consolidated statement of financial position cannot be derived from active markets, they are determined using internal valuation techniques using generally accepted market valuation models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, estimates are used in establishing fair values. These estimates may include considerations of liquidity, volatility and correlation. Certain financial assets and liabilities were initially recorded at its fair value (see Note 39).

4. Cash and Cash Equivalents

	2019	2018
Cash on hand and with banks	**₱731,522**	₱835,643
Cash under managed funds	**114,804**	106,954
Short-term cash investments	**11,096,802**	9,841,772
	₱11,943,128	₱10,784,369

Cash with banks and under managed funds earn interest at the prevailing bank deposit rates. Cash equivalents are short-term cash investments that are made for varying periods of up to three (3) months depending on the immediate cash requirements of the Group and earn interest at the respective short-term cash investment rates. The carrying value of cash and cash equivalents approximates their fair value as at the end of the financial reporting period.

The Group has US$ denominated cash and cash equivalents amounting to US$161.0 million, equivalent to ₱8,149.7 million, and US$126.6 million, equivalent to ₱6,657.5 million, as at December 31, 2019 and 2018, respectively (see Note 38).

Interest income from cash and cash equivalents amounted to ₱239.0 million, ₱188.1 million and ₱134.2 million in 2019, 2018 and 2017, respectively (see Note 29).

5. Trade and Other Receivables

	2019	2018
Trade (see Note 34)	**₱662,872**	₱801,351
Current portion of loan receivable (see Note 40a)	**248,910**	146,158
Interest receivable	**54,533**	53,315
Advances to officers and employees	**32,680**	37,981
Amounts owed by related parties (see Note 34)	**7,446**	9,255
Others	**93,415**	65,878
	1,099,856	1,113,938
Less allowance for ECL	**34,199**	57,370
	₱1,065,657	₱1,056,568

The movements of allowance for ECL follows:

2019	**Trade**	**Others**	**Total**
Balances at January 1	**₱42,706**	**₱14,664**	**₱57,370**
Provisions (see Note 31)	–	**193**	**193**
Reversals (see Note 31)	**(16,019)**	**(1,003)**	**(17,022)**
Write-off	**(5,817)**	–	**(5,817)**
Foreign exchange adjustments	**(525)**	–	**(525)**
Balances at December 31	**₱20,345**	**₱13,854**	**₱34,199**

2018	Trade	Others	Total
Balances at January 1	₱41,155	₱4,689	₱45,844
Provisions (see Note 31)	–	9,924	9,924
Foreign exchange adjustments	1,551	51	1,602
Balances at December 31	₱42,706	₱14,664	₱57,370

Trade receivables are noninterest-bearing and are generally on seven (7) to thirty (30)-days' term, except for the usage fee billed to THNC which is collected on a semi-annual basis.

Loan receivable pertains to the loan issued by CMC to East Coast Mineral Resources Co., Inc. (East Coast), which will be settled based on the agreed repayment terms (see Note 40a).

Interest receivable is derived from short-term cash investments placed in various local/foreign banks, which are collectible upon maturity, from debt securities and long-term negotiable instruments which are collectible either monthly, quarterly or semi-annually, and from loan issued to East Coast which is collectible based on the agreed repayment terms.

Advances to officers and employees are noninterest-bearing and are generally subject to liquidation or collectible through salary deduction.

Amounts owed by related parties are noninterest-bearing with no fixed maturities and are generally collectible on demand.

Other receivables include advances to third party companies which are noninterest-bearing, with no fixed maturities and are generally collectible on demand. These also include despatch receivables which are generally on seven (7) to thirty (30)-days' terms.

In 2018, the Group written-off trade and other receivables amounting to ₱7.4 million (see Note 31).

The Group has US$ denominated trade and other receivables amounting to US$15.0 million, equivalent to ₱757.7 million, and US$11.5 million, equivalent to ₱605.0 million, as at December 31, 2019 and 2018, respectively (see Note 38).

6. Inventories

	2019	2018
Beneficiated nickel ore and limestone - at cost	**₱2,710,844**	₱2,700,539
Beneficiated nickel ore - at NRV	**826,742**	539,222
Materials and supplies:		
At NRV	**370,318**	437,780
At cost	**32,201**	11,427
Current portion of long-term stockpile inventory (see Note 12)	**55,306**	55,306
	₱3,995,411	₱3,744,274

The movements of allowance for impairment losses on inventories follows:

2019	**Beneficiated nickel ore**	**Materials and supplies**	**Total**
Balances at January 1	**₱66,523**	**₱36,350**	**₱102,873**
Provisions (see Note 31)	**–**	**11,591**	**11,591**
Balances at December 31	**₱66,523**	**₱47,941**	**₱114,464**

2018	Beneficiated nickel ore	Materials and supplies	Total
Balances at January 1	₱68,241	₱17,384	₱85,625
Provisions (see Note 31)	–	18,966	18,966
Reversals (see Note 31)	(1,718)	–	(1,718)
Balances at December 31	₱66,523	₱36,350	₱102,873

As at December 31, 2019 and 2018, the cost of beneficiated nickel ore and limestone provided with allowance for impairment losses amounted to ₱893.3 million and ₱605.7 million, respectively, while the cost of materials and supplies provided with allowance for impairment losses amounted to ₱418.3 million and ₱474.1 million, respectively.

Costs of inventories charged as expense amounted to ₱7,459.9 million, ₱7,271.1 million and ₱6,410.6 million in 2019, 2018 and 2017, respectively (see Notes 21, 22, 23, 25, 26 and 31).

7. Financial Assets

	2019			2018		
	Financial Assets at			Financial Assets at		
	FVOCI	FVTPL	Amortized Cost	FVOCI	FVTPL	Amortized Cost
Quoted instruments:						
Debt securities	**₱2,730,168**	**₱625,374**	**₱454,217**	₱2,608,301	₱475,202	₱531,770
Equity securities	**–**	**1,170,193**	**–**	–	1,062,349	–
Unquoted equity instruments	**–**	**706,982**	**–**	–	469,095	–
	₱2,730,168	**₱2,502,549**	**₱454,217**	₱2,608,301	₱2,006,646	₱531,770

The Group's financial assets pertain to investments in common and preferred shares of various local and foreign public and private companies, mutual funds, golf club shares and debt securities which are either unquoted or with quoted market prices. Quoted and unquoted instruments are carried either at fair market value or at amortized cost as at the end of the financial reporting period.

The movements in financial assets follows:

	2019			2018		
	Financial Assets at			Financial Assets at		
	FVOCI	FVTPL	Amortized Cost	FVOCI	FVTPL	Amortized Cost
Balances at January 1	**₱2,608,301**	**₱2,006,646**	**₱531,770**	₱2,858,666	₱3,330,923	₱693,275
Additions	**2,238,853**	**1,233,067**	**58,447**	1,539,437	789,181	48,439
Disposals	**(2,224,075)**	**(1,065,977)**	**–**	(1,764,230)	(2,007,499)	–
Redemption	**–**	**–**	**(136,000)**	–	–	(196,048)
Effect of changes in foreign exchange rate (see Note 31)	**(26,843)**	**(18,912)**	**–**	26,669	23,856	–
Net valuation gains (losses) on financial assets	**133,932**	**347,725**	**–**	(52,241)	(129,815)	(13,896)
Balances at December 31	**2,730,168**	**2,502,549**	**454,217**	2,608,301	2,006,646	531,770
Less noncurrent portion	**–**	**851,266**	**210,000**	–	585,928	330,000
Current portion	**₱2,730,168**	**₱1,651,283**	**₱244,217**	₱2,608,301	₱1,420,718	₱201,770

The movements in "Net valuation gains (losses) on financial assets at FVOCI" presented as a separate component of equity follows:

	2019	2018
Balances at January 1, as restated	**(₱92,504)**	(₱42,805)
Movements recognized in equity:		
Gains (losses) recognized in equity	**152,987**	(101,697)
Reclassification adjustments for loss (income) included in the consolidated statements of income (see Note 31)	**(19,055)**	49,456
Income tax effect	**(9,185)**	2,542
Valuation gains (losses) taken into the consolidated statements of comprehensive income - net of tax	**124,747**	(49,699)
Balances at December 31	**₱32,243**	(₱92,504)

Dividend income from equity securities amounted to ₱45.5 million, ₱38.8 million and ₱37.0 million in 2019, 2018 and 2017, respectively, of which ₱22.9 million in 2019, and ₱15.3 million in 2018 and 2017 relates to dividends coming from investments in unquoted equity securities (see Note 31), while interest income from debt securities amounted to ₱130.2 million, ₱133.7 million and ₱135.6 million in 2019, 2018 and 2017, respectively (see Note 29).

The Group sold some of its debt and equity securities at a gain of ₱19.3 million and ₱14.3 million in 2019 and 2017, respectively, and at a loss of ₱47.1 million in 2018 (see Note 31).

In 2019 and 2018, the Group did not recognize any provision for ECL on its financial assets at FVOCI and at amortized cost. In 2017, the Group recognized a provision for impairment losses on its equity security amounting to ₱133.3 million (see Note 31).

As at December 31, 2019, the Group has US$ denominated financial assets at FVTPL and at FVOCI amounting to US$21.8 million, equivalent to ₱1,102.4 million, and US$15.0 million, equivalent to ₱760.5 million, respectively. As at December 31, 2018, the Group's US$ denominated financial assets at FVTPL and at FVOCI amounted to US$17.6 million, equivalent to ₱924.5 million, and US$15.9 million, equivalent to ₱838.4 million, respectively (see Note 38).

8. Prepayments and Other Current Assets

	2019	2018
Input VAT (net of allowance for impairment losses of ₱54.8 million as at December 31, 2019 and 2018)	**₱147,368**	₱121,366
Prepaid rent and others	**109,459**	69,516
Prepaid taxes	**46,545**	75,088
Tax credit certificates (net of allowance for impairment losses of ₱0.5 million as at December 31, 2019 and 2018)	**30,901**	47,170
Current portion of advances to claimowner	**30,000**	–
Advances and deposits to suppliers and contractors (net of allowance for impairment losses of ₱514.7 million as at December 31, 2019 and 2018)	**26,050**	100,928
Prepaid insurance	**3,070**	30,206
Short-term cash investments	–	679,206
Current portion of long-term negotiable instruments	–	30,000
Restricted cash	–	11,270
	₱393,393	₱1,164,750

Input VAT represents the VAT passed on from purchases of applicable goods and services which can be recovered as tax credit against future output VAT from the sale of goods and/or services of the Group.

Prepayments are amortized within three (3) to twelve (12) months from the end of the financial reporting period.

Prepaid taxes represent certificates of creditable withholding taxes for services rendered to other parties which can be recovered as tax credits against certain future tax liabilities of the Group.

Tax credit certificates are tax refunds received by the Group.

Advances and deposits to suppliers and contractors represent payments made in advance to suppliers and contractors which will be offset against future billings upon the delivery of goods and/or completion of services. This includes the advances made to Asiacrest Marketing Corporation (Asiacrest) which is related to the Engineering Procurement Construction (EPC) Contract for the 100MW solar power plant in Subic. As at December 31, 2019, there was a pending case against Asiacrest and First Integrated Bonding and Insurance Co. (FIBIC), the surety which secured Asiacrest's performance of its obligation, jointly and severally liable to the extent of the value of the performance bond, for the breach of EPC contract and doubts have been raised on the financial capacity of these companies. Jobin has assessed the current financial position of Asiacrest and FIBIC and the increase in the credit risk associated to advance payment it has made to Asiacrest. As a result, in 2018, a provision for impairment losses amounting to ₱514.7 million was recognized (see Note 31).

Short-term cash investments include local currency and US$ denominated cash placements that will mature within four (4) to twelve (12) months from the end of the financial reporting period. Short-term cash investments denominated in local and US$ currency earn interest ranging from 5.60% p.a. to 6.75% p.a. and at 3.12% p.a., respectively, in 2018. Interest income from short-term cash investments amounted to nil in 2019 and 2017 and ₱0.9 million in 2018 (see Note 29).

As at December 31, 2018, the Group has US$ denominated short-term cash investments amounting to US$8.1 million, equivalent to ₱427.1 million (see Note 38).

The long-term negotiable instrument matured in October 2019 and earned interest at 5.25% p.a. Interest income from current portion of long-term negotiable instruments amounted to ₱1.0 million in 2019, ₱1.3 million in 2018 and nil in 2017 (see Note 29).

Restricted cash pertains to the cash required to be set aside by Jobin for the funding of amortization due on the outstanding long-term debt of Jobin with the Land Bank of the Philippines (LBP). The restricted cash represents at least one (1) amortization payment of principal and interest due for the forthcoming period. The restriction lapse when the related long-term debt was paid off in November 2019.

9. Property and Equipment

	2019								
	Land and Land Improvements	Mining Properties and Development Costs	Machinery and Equipment	Buildings and Improvements	ROU Asset - Land, Building and Improvements	Transmission Lines and Substations	Solar Farm	Construction In-progress	Total
Cost:									
Balances at January 1, as previously reported	₱292,343	₱576,523	₱11,601,274	₱3,979,217	₱–	₱935,461	₱1,946,402	₱6,470,243	₱25,801,463
Effect of PFRS 16 adoption	–	–	–	–	635,282	–	–	–	635,282
Balances at January 1, as restated	292,343	576,523	11,601,274	3,979,217	635,282	935,461	1,946,402	6,470,243	26,436,745
Additions	–	–	1,280,804	45,126	31,301	–	250	203,576	1,561,057
Adjustment for capitalized cost of mine rehabilitation and decommissioning (see Note 16)	–	204,766	–	–	–	–	–	–	204,766
Disposals	–	–	(124,034)	(3,979)	–	–	(17,049)	–	(145,062)
Transfers/reclassification	–	–	57,287	118,696	–	–	(31,762)	(179,924)	(35,703)
Balances at December 31	292,343	781,289	12,815,331	4,139,060	666,583	935,461	1,897,841	6,493,895	28,021,803
Accumulated depreciation, amortization and depletion:									
Balances at January 1	10,151	309,070	8,136,888	1,923,119	–	74,224	269,791	–	10,723,243
Depreciation, amortization and depletion (see Note 28)	2,411	20,095	934,218	260,376	39,081	33,369	108,760	–	1,398,310
Disposals	–	–	(122,300)	(841)	–	–	(1,957)	–	(125,098)
Transfers/reclassification	–	–	86	(876)	–	–	(2,054)	–	(2,844)
Balances at December 31	12,562	329,165	8,948,892	2,181,778	39,081	107,593	374,540	–	11,993,611
Net book values	₱279,781	₱452,124	₱3,866,439	₱1,957,282	₱627,502	₱827,868	₱1,523,301	₱6,493,895	₱16,028,192

	2018							
	Land and Land Improvements	Mining Properties and Development Costs	Machinery and Equipment	Buildings and Improvements	Transmission Lines and Substations	Solar Farm	Construction In-progress	Total
Cost:								
Balances at January 1	₱292,343	₱704,829	₱10,676,657	₱3,527,885	₱865,028	₱1,959,180	₱7,200,124	₱25,226,046
Additions	–	–	946,358	22,887	235	621	174,168	1,144,269
Adjustment for capitalized cost of mine rehabilitation and decommissioning (see Note 16)	–	(128,306)	–	–	–	–	–	(128,306)
Disposals	–	–	(480,117)	(844)	–	(1,017)	–	(481,978)
Transfers/reclassification	–	–	458,376	429,289	70,198	(12,382)	(904,049)	41,432
Balances at December 31	292,343	576,523	11,601,274	3,979,217	935,461	1,946,402	6,470,243	25,801,463
Accumulated depreciation, amortization and depletion:								
Balances at January 1	7,740	279,641	7,668,646	1,675,963	43,782	162,015	–	9,837,787
Depreciation, amortization and depletion (see Note 28)	2,411	26,744	927,098	247,885	34,949	113,518	–	1,352,605
Disposals	–	–	(455,479)	(729)	–	(401)	–	(456,609)
Transfers/reclassification		2,685	(3,377)	–	(4,507)	(5,341)	–	(10,540)
Balances at December 31	10,151	309,070	8,136,888	1,923,119	74,224	269,791	–	10,723,243
Net book values	₱282,192	₱267,453	₱3,464,386	₱2,056,098	₱861,237	₱1,676,611	₱6,470,243	₱15,078,220

Construction in-progress includes the costs incurred to date for the Biliran Geothermal Project, which management assessed to be completed in 2021.

Pier facilities (included under “Buildings and improvements”) which are fully depreciated as at December 31, 2019 and 2018 and are still being used in operations were mortgaged as collateral for the long-term debt of RTN. The loan was fully paid in February 2018 which resulted to the release of mortgage and collaterals pledged (see Note 15).

The carrying value of the 7.14MW Sta. Rita Solar Power Plant that was pledged as collateral for Jobin’s borrowing with LBP amounted to ₱488.4 million and ₱509.8 million as at December 31, 2019 and 2018, respectively. In November 2019, Jobin made a full settlement of its loan from LBP, which also resulted to the release of mortgage and collaterals pledged (see Note 15).

As at December 31, 2019, there were no property and equipment pledged as collateral for the Group’s borrowings.

Depreciation on the excess of the fair value of the assets acquired from RTN over their corresponding book values transferred to retained earnings amounted to ₱0.4 million in 2019, 2018 and 2017.

10. **Investments in Associates**

	2019	2018
THNC	**₱2,228,384**	₱2,247,912
CBNC	**1,031,351**	1,292,677
	₱3,259,735	₱3,540,589

The movements in investments in associates follows:

	2019			2018		
	THNC	**CBNC**	**Total**	THNC	CBNC	Total
Balances at January 1	**₱1,974,700**	**₱724,410**	**₱2,699,110**	₱1,974,700	₱724,410	₱2,699,110
Accumulated equity in net earnings (losses):						
Balances at January 1	**(304,255)**	**227,481**	**(76,774)**	(371,303)	(53,639)	(424,942)
Equity in net income (losses)	**56,067**	**(45,684)**	**10,383**	67,048	281,120	348,168
Dividends declared	**–**	**(104,818)**	**(104,818)**	–	–	–
	(248,188)	**76,979**	**(171,209)**	(304,255)	227,481	(76,774)
Share in cumulative translation adjustment:						
Balances at January 1	**577,467**	**340,786**	**918,253**	479,682	198,282	677,964
Movements	**(75,595)**	**(110,824)**	**(186,419)**	97,785	142,504	240,289
	501,872	**229,962**	**731,834**	577,467	340,786	918,253
Balances at December 31	**₱2,228,384**	**₱1,031,351**	**₱3,259,735**	₱2,247,912	₱1,292,677	₱3,540,589

The share in cumulative translation adjustment of associates is gross of deferred income tax liability of ₱119.2 million and ₱137.8 million as at December 31, 2019 and 2018, respectively (see Note 37).

THNC
THNC, a private entity that is not listed on any public exchange, was incorporated and registered with the Philippine SEC on August 22, 2008. THNC is engaged in the manufacture and export of nickel/cobalt mixed sulfide, nickel hydroxide and any and all ingredient and products and by-products, wherein TMC has a Nickel Ore Supply Agreement to supply all of the limonite ore requirements of the Taganito High Pressure Acid Leach (HPAL) facility. TMC also provides services related to the handling, hauling and transportation of materials required in the processing operations of THNC. THNC started commercial operations in October 2013.

The Parent Company, together with Sumitomo Metal Mining Co., Ltd. (SMM) and Mitsui and Co., Ltd. (Mitsui) signed a Stockholders' Agreement on September 15, 2010, dividing the ownership of THNC, into 22.5%, 62.5% and 15.0%, respectively.

On November 4, 2010, pursuant to the terms of the Stockholders' Agreement, the Parent Company entered into a subscription agreement with THNC for the subscription of 921,375,000 common shares for a total amount of US$102.4 million or ₱4,443.1 million which is equivalent to 22.5% interest in THNC.

On October 17, 2016, the Parent Company sold a portion of its shareholdings in THNC, equivalent to 511,875,000 shares or 12.5% interest in THNC, to SMM for US$42.0 million, which is equivalent to ₱2,037.2 million (see Note 40o).

THNC's financial statements are stated in US$ and translated at the closing rate of US$1 = ₱50.64 and US$1 = ₱52.58 as at December 31, 2019 and 2018, respectively, for assets and liabilities accounts, historical rates for equity accounts and average rate of US$1 = ₱51.79 and US$1 = ₱52.69, respectively, for the statement of income accounts for the years then ended.

The following are the summarized financial information of THNC as at and for the years ended December 31, 2019 and 2018:

	2019	2018
Current assets	**₱9,571,322**	₱8,466,177
Noncurrent assets	**77,300,644**	79,825,082
Current liabilities	**(44,132,569)**	(37,444,499)
Noncurrent liabilities	**(22,836,605)**	(30,748,684)
Net assets	**₱19,902,792**	₱20,098,076

	2019	2018
Revenue	**₱20,939,980**	₱19,333,648
Expenses	**(20,379,312)**	(18,663,167)
Net income	**₱560,668**	₱670,481

CBNC

CBNC, a private entity that is not listed on any public exchange, was incorporated and registered with the Philippine SEC on April 4, 2002. CBNC is engaged in the manufacture and export of nickel/cobalt mixed sulfide wherein RTN has a Nickel Ore Supply Agreement to supply all of the limonite ore requirements of the Coral Bay Hydro Metallurgical Processing Plant (HPP) facility. The agreement provides that it will terminate until the earlier of the cessation of operations at the Coral Bay HPP facility and exhaustion of the limonite ore reserves at the Rio Tuba mine. RTN also supplies limestone and provide ancillary services to Coral Bay HPAL facility.

CBNC's financial statements are stated in US$ and translated at the closing rate of US$1 = ₱50.64 and US$1 = ₱52.58 as at December 31, 2019 and 2018, respectively, for assets and liabilities accounts, historical rates for equity accounts and average rate of US$1 = ₱51.79 and US$1 = ₱52.69, respectively, for the statement of income accounts for the years then ended.

The following are the summarized financial information of CBNC as at and for the years ended December 31, 2019 and 2018:

	2019	2018
Current assets	**₱9,526,759**	₱10,790,270
Noncurrent assets	**20,527,617**	21,812,588
Current liabilities	**(1,265,366)**	(1,226,565)
Noncurrent liabilities	**(208,439)**	(182,472)
Net assets	**₱28,580,571**	₱31,193,821

	2019	2018
Revenue	**₱12,242,539**	₱15,517,623
Expenses	**(12,699,375)**	(12,706,425)
Net income (loss)	**(₱456,836)**	₱2,811,198

11. Geothermal Exploration and Evaluation Assets

	2019	2018
Balances at January 1	**₱1,793,444**	₱1,784,183
Additions	**18,267**	9,261
Balances at December 31	**₱1,811,711**	₱1,793,444

Geothermal exploration and evaluation assets represent the accumulated costs incurred in connection with the exploration and development activities for the Montelago Geothermal Project. The recovery of these costs depends upon determination of technical feasibility, success of exploration activities and discovery of geothermal resource that can be produced in commercial quantities.

As at December 31, 2019 and 2018, no allowance for impairment losses was recognized on geothermal exploration and evaluation assets.

12. Long-term Stockpile Inventory

The long-term stockpile inventory pertains to low grade ore extracted from RTN's minesite. This amount was not recognized in RTN's books but was recognized by the Parent Company when it acquired the controlling interest in RTN in August 2006. The low grade ore inventory was initially recognized at fair value. The fair value of the long-term stockpile inventory was computed using the present value of the estimated future cash flows of RTN which it will derive from the long-term Nickel Ore Supply Agreement with CBNC (see Note 34a). Subsequently, this fair value represented the cost of the long-term stockpile inventory.

The cost of the long-term stockpile inventory is periodically charged to cost of sale of ore based on the actual tonnage delivered to CBNC from the long-term stockpile. The cost of long-term stockpile inventory amounting to nil, ₱218.7 million and ₱163.5 million were charged to "Cost of sale of ore and limestone" in 2019, 2018 and 2017, respectively (see Note 21).

A portion amounting to ₱55.3 million, representing the estimated costs of the long-term stockpile inventory that will be delivered to CBNC in the next financial reporting period, were shown as part of "Inventories" as at December 31, 2019 and 2018 (see Note 6).

The carrying value of long-term stockpile inventory - net of current portion amounted to ₱105.6 million as at December 31, 2019 and 2018.

13. **Other Noncurrent Assets**

	2019	2018
Deferred mine exploration costs	**₱1,313,546**	₱1,244,827
Input VAT - net of current portion	**759,620**	781,607
Loan receivable - net of current portion (see Note 40a)	**574,880**	576,946
MRF	**511,881**	476,745
Advances and deposits to suppliers and contractors - net of current portion	**172,643**	35,505
Project development costs	**102,387**	27,349
SDMP funds	**71,926**	35,834
Advance royalties	**55,184**	55,904
Advances to claimowners (see Note 40e)	**55,053**	114,839
Long-term negotiable instruments	**40,000**	40,000
Investment properties	**29,000**	29,000
Computer software	**28,889**	2,063
Pension asset (see Note 36)	**5,361**	7,199
Deposit for aircraft acquisition	–	97,781
Others	**3,649**	5,792
	3,724,019	3,531,391
Less allowance for impairment losses	**250,092**	249,367
	₱3,473,927	₱3,282,024

The movements of allowance for impairment losses follows:

2019	**Deferred mine exploration costs**	**Input VAT**	**Total**
Balances at January 1	**₱143,593**	**₱105,774**	**₱249,367**
Provisions (see Note 31)	–	**725**	**725**
Balances at December 31	**₱143,593**	**₱106,499**	**₱250,092**

2018	Deferred mine exploration costs	Input VAT	Total
Balances at January 1	₱143,578	₱105,774	₱249,352
Provisions (see Note 31)	15	–	15
Balances at December 31	₱143,593	₱105,774	₱249,367

Deferred mine exploration costs include mining rights of ₱945.6 million as at December 31, 2019 and 2018.

Input VAT represents the VAT passed on from purchases of applicable goods and services. Input VAT, in excess of output tax, can be recovered as tax credit against future tax liability of the Group. The noncurrent portion of input VAT pertains to the unamortized portion of input VAT on purchase of capital goods spread evenly over the life of the capital goods or five (5) years, whichever is shorter. The balance is recoverable in future periods.

Loan receivable pertains to the loan issued by CMC to East Coast, which will be settled based on the agreed repayment terms (see Note 40a).

MRF, which includes the Final Mine Rehabilitation and Decommisioning Fund, is the amount deposited in local bank accounts established by the Group in compliance with the requirements of the Philippine Mining Act of 1995 as amended by Department of Environment and Natural Resources (DENR) Administrative Order No. 2005-07. The MRF is earmarked for physical and social rehabilitation of areas and communities affected by mining activities and for research on the social, technical and preventive aspects of rehabilitation. Any disbursement in the MRF should be authorized by the MRF Committee, the external overseeing body charged with the duties of managing, operating, monitoring and looking after the safety of the MRF. The MRF earns interest at the respective bank deposit rates. Interest income earned from MRF amounted to ₱7.1 million, ₱5.0 million and ₱3.1 million in 2019, 2018 and 2017, respectively (see Note 29).

Advances and deposits to suppliers and contractors include security deposits and payments made in advance to suppliers and contractors which will be offset against future billings upon the delivery of goods and/or completion of services.

Project development cost pertains to the development cost incurred for various projects of EPI and Jobin.

The SDMP funds shall be used for the sustainable development of the host and neighboring communities of the mine site. The programs are intended for health, education, livelihood, public utilities and socio-cultural preservation. Its implementation is under the audit, monitoring and evaluation of the Mines and Geosciences Bureau (MGB). Interest income earned from SDMP funds amounted to ₱0.2 million, ₱0.2 million and ₱0.1 million in 2019, 2018 and 2017, respectively (see Note 29).

Advance royalties pertain to royalty payments to MGB.

Advances to claimowners represent advance royalty payments to East Coast, La Salle Mining Exploration Company (La Salle), Kepha Mining Exploration Limited Company (Kepha) and Ludgoron Mining Corporation (Ludgoron; see Note 40e).

The long-term negotiable instruments will mature in 2023 and earn interest at 3.87% p.a. and 4.50% p.a. Interest income from long-term negotiable instruments amounted to ₱1.4 million in 2019, ₱1.0 million in 2018 and ₱1.3 million 2017 (see Note 29).

Investment properties consist of parcels of land located in Surigao City, which is intended for leasing to THNC in the future.

As at December 31, 2019 and 2018, the carrying values of the Group's investment properties amounted to ₱29.0 million, and the appraised value of the land using Market Data/Sales Comparison Approach amounted to ₱44.4 million, with a zonal value of ₱6.4 million. In 2019, 2018 and 2017, no income was earned and no direct expenses, other than real property tax, were incurred related to the investment properties.

Computer software pertains to computer licenses which are subject to amortization over a certain period. In 2019, 2018 and 2017, the amortization of computer software amounted to ₱6.1 million, ₱3.0 million and ₱1.9 million, respectively (see Note 28).

Deposit for aircraft acquisition pertains to advance payments made by RTN to World Aviation Corporation (WAC) in 2013, for an absolute and exclusive right to purchase an aircraft which is exercisable within twelve (12) years. In August 2019, RTN assigned the option to purchase the aircraft to CPDL for US$ 0.9 million and written-off the balance of ₱51.1 million (see Notes 31 and 40q).

14. Trade and Other Payables

	2019	2018
Trade (see Note 34)	**₱731,244**	₱735,582
Amounts owed to related parties (see Note 34)	**5,330,216**	5,373,849
Dividends payable (see Note 34)	**574,400**	663,500
Accrued expenses (see Note 34)	**469,099**	426,920
Government payables:		
Excise taxes and royalties payable	**204,628**	189,552
Withholding taxes payable	**136,308**	145,478
Output VAT	**10,364**	5,681
Fringe benefit taxes (FBT) payable	**826**	1,072
Documentary stamp taxes (DST) payable	**337**	1,114
Contract liability	**25,949**	8,891
Interest payable (see Note 34)	**11,365**	15,626
Deferred income	**4,472**	11,720
Retention fees payable	**3,528**	3,629
Others	**28,122**	30,370
	₱7,530,858	₱7,612,984

Trade, accrued expenses and other payables are noninterest-bearing and are generally settled within one (1) year. Trade payables relate to payables to suppliers in the ordinary course of business. Accrued expenses substantially consist of contractor's fees, trucking and stevedoring services, hauling and rental expenses, guarantee service fees and others which are usual in the business operations of the Group.

Amounts owed to related parties pertain to advances received from Orka Geothermal Investments Pte. Ltd. (OGI) and Biliran Geothermal Holdings Incorporated (BGHI). Amounts owed to OGI pertain to funds used in the drilling operations of BGI and purchases paid by OGI in behalf of BGI. Amounts owed to BGHI pertain mainly to the amount originally payable to OGI but were sold by the latter to the former in 2014. Part of this amount pertains also to miscellaneous expenses paid by BGHI in behalf of BGI.

Dividends payable refers to the cash dividends declared by TMC and RTN to PAMCO and Sojitz Corporation (Sojitz) in December 2019 and 2018 and payable in January of the following year. The amount is net of final withholding tax.

Government payables include withholding taxes which are normally settled within ten (10) to fifteen (15) days after the end of each financial reporting month or thirty (30) days after the end of each financial reporting quarter, and FBT which are normally settled within thirty (30) days after the end of the quarter on which the fringe benefits are granted to the recipients. Excise tax payable is settled within fifteen (15) days after the end of the quarter when the beneficiated nickel ore and limestone were shipped. Royalties are paid on or before the deadline agreed with the MGB or other parties. DST is normally settled within five (5) days after the close of the month when the taxable document was issued.

Contract liability pertains to the advance payment received by RTN from CBNC for the materials handling services rendered by RTN from CBNC's stockyard to plant site.

Interest payable on loans is settled based on the agreed repayment terms.

Retention fees payable pertains to the amount retained by the Group from its suppliers/contractors and will be paid after the completion of the construction of the projects.

The Group has US$ denominated trade and other payables amounting to US$23.5 million, equivalent to ₱1,190.0 million, and US$23.7 million, equivalent to ₱1,244.7 million, as at December 31, 2019 and 2018, respectively (see Note 38).

15. **Short-term and Long-term Debts**

Short-term debts

Manta Equities Inc. (Manta)

On June 8, 2015, EPI entered into a one (1) year loan agreement with Manta amounting to ₱180.0 million to finance the development expenses of EPI's geothermal power project. The loan is unsecured and bears an annual interest of 5.00%. The principal and interest is payable at the end of the loan agreement. On June 6, 2016, EPI and Manta extended the loan for another year or up to June 7, 2017 under the same terms of the original loan. The principal and interest was paid in June 2017.

Interest expense incurred in connection with the loans amounted to ₱4.3 million in 2017 and nil in 2019 and 2018.

Security Bank Corporation (SBC)

On March 23, 2018, SBC approved the renewal of EPI's original loan facility to the extent of ₱1,500.0 million. On August 3, 2018 and September 21, 2018, EPI made drawdowns from the said renewal amounting to ₱300.0 million and ₱1,200.0 million, respectively. Proceeds of the loan drawdowns were used by EPI to settle the promissory notes under the original SBC loan facility, which matured in 2018.

At maturity date, EPI requested another approval from SBC for the renewal of their original loan facility to the extent of ₱1,500.0 million which was approved on July 19, 2019. On July 26, 2019 and September 16, 2019, EPI made drawdowns from the said renewal amounting to ₱300.0 million and ₱1,200.0 million, respectively, which was used to settle promissory notes under the original SBC loan facility, which matured in 2019.

The loan facility is secured by a continuing suretyship of the Parent Company (see Note 40r).

Details of the drawdowns are as follows:

2019					
Drawdowns	**Drawdown Date**	**Maturity Date**	**Interest Rate**	**Amount**	**Debt Issue Costs**
First	**July 26, 2019**	**July 20, 2020**	**7.25%**	**₱300,000**	**₱2,220**
Second	**September 16, 2019**	**September 10, 2020**	**6.50%**	**1,200,000**	**8,877**
				₱1,500,000	**₱11,097**

2018					
Drawdowns	Drawdown Date	Maturity Date	Interest Rate	Amount	Debt Issue Costs
First	August 3, 2018	July 26, 2019	6.95%	₱300,000	₱2,216
Second	September 21, 2018	September 16, 2019	6.95%	1,200,000	8,862
				₱1,500,000	₱11,078

The carrying amount of short-term debt with SBC, net of unamortized debt issue cost, follows:

	2019	2018
Loans payable	**₱1,500,000**	₱1,500,000
Less unamortized debt issue cost	**(7,596)**	(7,732)
Balances at December 31	**₱1,492,404**	₱1,492,268

Debt issue costs pertain to DST and other transaction costs incurred in connection with the availment of the loans. These are deducted from the amount of loans payable and are amortized using the EIR method.

The movements of the unamortized debt issue costs in 2019 and 2018 are as follows:

	2019	2018
Balances at January 1	**₱7,732**	₱–
Additions	**11,097**	11,078
Amortization	**(11,233)**	(3,346)
Balances at December 31	**₱7,596**	₱7,732

Interest expense in 2019 and 2018 are summarized below:

	2019	2018
Interest on loans	**₱106,489**	₱25,896
Amortization of debt issue costs	**11,233**	3,346
	₱117,722	₱29,242

There were no capitalized borrowing costs pertaining to short-term debts in 2019, 2018 and 2017.

Long-term debts
Long-term debts of the following subsidiaries are as follows:

	2019	2018
TMC	**₱1,019,029**	₱1,150,188
Jobin	**–**	257,344
	1,019,029	1,407,532
Less noncurrent portion:		
TMC	**930,418**	1,058,172
Jobin	**–**	230,390
	930,418	1,288,562
Current portion	**₱88,611**	₱118,970

TMC Loan
On October 4, 2010, TMC entered into an Omnibus Agreement with THNC, wherein the latter granted the former a total loan facility amounting to US$35.0 million at a prevailing one hundred eighty (180)-day British Banker Association London Inter-Bank Offered Rate (LIBOR) plus 2.00% spread, to exclusively finance the construction of the pier facilities within the Taganito Special Economic Zone (TSEZ). The loan is unsecured and shall be drawn down in one or multiple times by July 31, 2011.

The interest on the loan is payable semi-annually, on October 10 and April 10. The total principal is payable in semi-annual installments of US$0.9 million starting on October 10, 2011 up to April 10, 2031.

The Omnibus Agreement provides for restriction with respect to creation, assumption, incurrence and permission to exist any lien upon the pier facilities and all TMC's other real rights over the same except as permitted under the Omnibus Agreement. Also, the Omnibus Agreement provides for certain conditions which include, among others, maintenance and preservation of TMC's corporate existence, rights, privileges and licenses, prompt submission of written notice to THNC of any and all litigations and administrative arbitration proceedings before any Governmental authority affecting TMC, prompt payment of all amounts due under the loan documents and maintenance of all Governmental approvals necessary to perform the obligations. As at December 31, 2019 and 2018, TMC is in compliance with the restrictions.

Interest expense in 2019, 2018 and 2017 amounted to ₱49.6 million, ₱51.6 million and ₱42.6 million, respectively (see Notes 30 and 34).

As at December 31, 2019 and 2018, the carrying amount of long-term debt with THNC amounted to ₱1,019.0 million and ₱1,150.2 million, respectively (see Note 34).

The US$ denominated long-term debts amounted to US$20.1 million, equivalent to ₱1,019.0 million, and US$21.9 million, equivalent to ₱1,150.2 million, as at December 31, 2019 and 2018, respectively (see Note 38).

Jobin Loan
On April 26, 2016, Jobin entered into a twelve (12)-year term loan agreement with LBP amounting to ₱300.0 million to partially finance the construction and development of a 7.14MW Sta. Rita Solar Power Plant and inter-connection assets located in Subic Bay Freeport Zone (SBFZ). The loan is subject to an interest based on the applicable benchmark rate (3-month PDST-R2) plus a minimum spread of 1.50% p.a., with a floor rate of 4.75% p.a., subject to quarterly repricing. The loan is

payable in forty-four (44) equal quarterly payments, starting at the end of the fifth (5th) quarter from the date of the initial loan and interest is payable quarterly in arrears from the date of initial loan. Jobin is also required to pay gross receipt tax equal to 1.00% of each interest payment.

The loan is secured by the following:
a) Chattel mortgage on the 7.14MW Sta. Rita Solar Power Plant (see Note 9)
b) Corporate guarantee of EPI
c) Assignment of leasehold rights between Jobin and Subic Bay Metropolitan Authority (SBMA) on the lot at Mt. Sta. Rita, SBFZ, and 2,300 square meter (sq.m.) lot and 280 sq.m. building located near the NGCP facility, Subic Gateway Park, SBFZ
d) Pledge of shares of stock of Jobin

The loan agreement contains positive, negative and financial covenants which include, among others, payment of interest, strict compliance with regulatory provisions regarding internal revenue taxes and environmental requirements, and the maintenance of certain financial and project ratios. As at December 31, 2019 and 2018, Jobin has been compliant with the covenants contained in the loan agreement. On November 18, 2019, Jobin paid in full the remaining balance of the loan.

The carrying amount of long-term debt with LBP, net of unamortized debt issue cost, follows:

	2019	2018
Loans payable	**₱–**	₱259,091
Less unamortized debt issue cost	–	(1,747)
Balances at December 31	**₱–**	₱257,344

The movements of the unamortized debt issue cost in 2019 and 2018 are as follows:

	2019	2018
Balances at January 1	**₱1,747**	₱2,099
Amortization	**(1,747)**	(352)
Balances at December 31	**₱–**	₱1,747

Interest expense in 2019 and 2018 are summarized below:

	2019	2018
Interest on loans	**₱14,314**	₱14,203
Amortization of debt issue costs	**1,747**	352
	₱16,061	₱14,555

<u>EPI Loan</u>
On July 15, 2015, SBC approved the loan facility of EPI amounting to ₱3,000.0 million which will be used by EPI in funding its investments and working capital requirements. Staggered releases of loans are allowed up to August 31, 2016 with terms of up to three (3) years from date of every drawdown and payable upon maturity. In the event of default, the loans, together with accrued interest and any other sums payable under the promissory notes will immediately become due and payable.

The loans are secured by a continuing suretyship of the Parent Company. Under the Suretyship Agreement executed by and between the Parent Company and SBC on August 4, 2015, the Parent Company solidarily with EPI, guarantees and warrants to SBC, its assigns and successors-in-interest, prompt and full payment and performance of EPI's obligations to SBC (see Note 40r).

Details of the drawdowns received from the ₱3,000.0 million loan facility are as follows:

Drawdowns	Drawdown Date	Maturity Date	Interest Rate	Amount	Debt Issue Costs
First*	August 5, 2015	August 3, 2018	4.60%	₱510,000	₱2,551
Second	September 21, 2015	September 21, 2018	4.60%	1,200,000	6,000
Third**	December 2, 2015	December 3, 2018	4.90%	400,000	2,000
Fourth**	February 9, 2016	February 9, 2019	4.90%	200,000	1,000
Fifth**	March 1, 2016	March 1, 2019	5.00%	200,000	1,000
Sixth**	March 28, 2016	March 28, 2019	4.85%	200,000	1,000
Seventh**	May 12, 2016	May 12, 2019	4.85%	150,000	751
Eight**	May 25, 2016	May 25, 2019	4.85%	140,000	701
				₱3,000,000	₱15,003

**partial payment amounting to ₱210.0 million was made on September 29, 2017*
***prepaid on September 29, 2017*

On September 29, 2017, EPI prepaid certain promissory notes totaling ₱1,500.0 million. There were no prepayment penalty charged by SBC and the terms of the unpaid promissory notes remain the same. In 2018, EPI paid in full the remaining balance of the loan.

The movements of the unamortized debt issue costs in 2019 and 2018 are as follows:

	2019	2018
Balances at January 1	**₱–**	₱1,841
Amortization	**–**	(1,841)
Balances at December 31	**₱–**	₱–

Interest expense in 2019 and 2018 are summarized below:

	2019	2018
Interest on loans	**₱–**	₱48,721
Amortization of debt issue costs	**–**	1,841
	₱–	₱50,562

There were no capitalized borrowing costs in 2019, 2018 and 2017.

The Term Loan Agreement with SBC provides for restrictions with respect to creation or permission to exist any mortgage or pledge, lien or any encumbrance on all free assets owned or acquired by EPI. Also, the Term Loan Agreement restricts EPI to assume, guarantee, endorse or otherwise become directly or contingently liable in connection with any obligation of any other person, firm or corporation; participate or enter into any merger or consolidation; sell, lease, dispose or convey all or substantially all of EPI's assets; make advances or loans to any of the affiliates, subsidiaries, stockholders, directors and officers except in compliance with formally established and existing fringe benefit program of EPI; suspend its business operation or dissolve its affairs; and to enter into any credit or loan agreement or arrangement with any creditor under such terms and conditions that would place SBC in an inferior position risk-wise, vis-a-vis such other creditors. Moreover, the Term

Loan Agreement provides for certain conditions, which include, among others, prompt disclosure in writing of any material change in EPI's financial position and conduct of its operations or any substantial change in its management or ownership, conduct operations in accordance with sound business practice, maintenance and preservation of corporate existence, and prompt payment of all taxes, assessment and other governmental charges due. As at December 31, 2019 and 2018, EPI has been compliant with the covenants contained in the loan facility and agreements.

RTN Loan
On November 25, 2002, RTN entered into an Omnibus Agreement with SMM, wherein the latter granted the former a loan facility amounting to US$1.8 million at a prevailing one hundred eighty (180)-day LIBOR plus 2% spread, for the construction of the pier facilities.

In July 2003, an additional loan amounting to US$0.2 million was granted by SMM. Starting 2003, the interest on the original and additional loans is payable semi-annually, on February 28 and August 31. The total principal is payable in twenty (20) equal semi-annual installments starting on February 28, 2004 up to August 31, 2013. In February 2007, RTN and SMM agreed to an additional loan facility amounting to US$9.0 million. Of the total loan facility, the remaining US$0.5 million was drawn in February and March 2008. The additional loan facility is payable in semi-annual installments starting on August 31, 2008 up to February 28, 2018.

In consideration, and to ensure payment of these loans, RTN assigns, transfers, and sets over to SMM, absolutely and unconditionally, all of RTN's rights, title, and interest over its future receivable from CBNC under the Throughput Agreements (see Note 40b). RTN also constituted a first ranking mortgage on the pier facilities. As at December 31, 2019 and 2018, the pier facilities is fully depreciated (see Note 9).

The Omnibus Agreement provides for restrictions with respect to creation, assumption, incurrence and permission to exist any lien upon the pier facilities and all RTN's other real rights over the same except as permitted under the Omnibus Agreement. Also, the Omnibus Agreement provides for certain conditions which include, among others, maintenance and preservation of RTN's corporate existence, rights, privileges and licenses, prompt submission of written notice to SMM of any and all litigations or administrative or arbitration proceedings before any Governmental authority affecting RTN.

Interest expense amounted to nil, ₱0.1 million and ₱1.5 million in 2019, 2018 and 2017, respectively (see Notes 30 and 34).

In 2019, 2018 and 2017, no capitalized borrowing cost pertaining to long-term debts were recognized.

16. Provision for Mine Rehabilitation and Decommissioning

	2019	2018
Balances at January 1	**₱274,227**	₱388,787
Effect of change in estimate (see Note 9)	**204,766**	(128,306)
Accretion of interest on provision for mine rehabilitation and decommissioning (see Note 30)	**14,738**	13,746
Balances at December 31	**₱493,731**	₱274,227

Provision for mine rehabilitation and decommissioning pertains to the estimated decommissioning costs to be incurred in the future on the mined-out areas of the Group.

The Group makes a full provision for the future cost of rehabilitating mine site and related production facilities on a discounted basis on the development of mines or installation of those facilities. The rehabilitation provision represents the present value of rehabilitation costs. These provisions have been created based on the Group's internal estimates. Assumptions, based on the current economic environment, have been made which management believes are a reasonable basis upon which to estimate the future liability. These estimates are reviewed regularly to take into account any material changes to the assumptions. However, actual rehabilitation costs will ultimately depend upon future market prices for the necessary decommissioning works required which will reflect market conditions at the relevant time. Furthermore, the timing of rehabilitation is likely to depend on when the mine ceases to produce at economically viable rates. This, in turn, will depend upon future ore prices, which are inherently uncertain.

17. Long-term Payable

On December 14, 2015, CExCI and the stockholders of Newminco entered into a Share Purchase Agreement (SPA) wherein CExCI agreed to acquire 100% equity interest of Newminco, on a deferred payment basis, for a total consideration of ₱64.8 million.

Upon execution of the SPA, a downpayment of ₱30.8 million was paid and the remaining balance of ₱34.0 million, which is noninterest-bearing, is payable over a seven (7) year period. The total principal is payable in annual installment of ₱5.0 million starting in 2017 up to 2020 and annual installment of ₱7.0 million for the remaining term of the SPA. The unamortized discount on deferred payment, at 4.58% risk free rate, amounted to ₱1.7 million and ₱2.7 million as at December 31, 2019 and 2018, respectively.

As at December 31, 2019 and 2018, the carrying amount of long-term payable, net of unamortized discount, follows:

	2019	2018
Long-term payable	**₱19,000**	₱24,000
Less unamortized discount	**1,700**	2,677
	17,300	21,323
Less noncurrent portion	**12,300**	16,323
Current portion	**₱5,000**	₱5,000

In 2019, 2018 and 2017, the accretion of interest on long-term payable amounted to ₱1.0 million, ₱1.2 million and ₱1.3 million, respectively (see Note 30).

18. **Equity**

Capital Stock
The capital structure of the Parent Company follows:

	2019	2018
Common stock - ₱0.50 par value		
Authorized - 19,265,000,000 shares		
Issued - 13,685,272,117 shares in 2019 and 2018		
Outstanding - 13,651,538,117 shares in 2019 and 13,675,915,117 shares in 2018	**₱6,842,636**	₱6,842,636
Preferred stock - ₱0.01 par value		
Authorized and Issued - 720,000,000 shares	**7,200**	7,200
	₱6,849,836	₱6,849,836

Preferred share is voting, non-participating but with a fixed cumulative dividend rate of 7.00% p.a.

Issued Capital Stock
Beginning November 22, 2010, the common shares of the Parent Company were listed and traded in PSE with an initial public offering of 304,500,000 common shares (consisting of 132,991,182 shares held in treasury and new common shares of 171,508,818) with an offer price of ₱15.00 per share, which is equivalent to ₱1.48 per share after the stock dividends.

As at December 31, 2019 and 2018, a total of 32% or 4,367,937,638 common shares and 4,335,120,858 common shares, respectively, of the outstanding common shares of the Parent Company are registered in the name of ninety-two (92) and eighty-four (84) shareholders, respectively, while the balance of 68% or 9,283,600,479 common shares and 9,340,794,259 common shares, respectively, are lodged with the Philippine Depository and Trust Corporation.

The movements in common stock follows:

	2019		2018	
	Number of Shares	**Amount**	Number of Shares	Amount
Balances at January 1	**13,685,272,117**	**₱6,842,636**	7,602,928,954	₱3,801,465
Issuance of stock dividends	**–**	**–**	6,082,343,163	3,041,171
Balances at December 31	**13,685,272,117**	**₱6,842,636**	13,685,272,117	₱6,842,636

The movements in outstanding common stock follows:

	Number of Shares		
	Issued	Treasury	Outstanding
Balances at December 31, 2017	7,602,928,954	–	7,602,928,954
Issuance of stock dividends	6,082,343,163	–	6,082,343,163
Acquisitions during the year	–	(9,357,000)	(9,357,000)
Balances at December 31, 2018	13,685,272,117	(9,357,000)	13,675,915,117
Acquisitions during the year	–	(24,377,000)	(24,377,000)
Balances at December 31, 2019	13,685,272,117	(33,734,000)	13,651,538,117

On March 24, 2014, the BOD of the Parent Company approved ESOP (2014 ESOP; the Plan) which was ratified by the Parent Company's stockholders on June 6, 2014. On November 21, 2014, the Plan was approved by the SEC. A total of 32.0 million shares of stock were reserved for issue under the Plan.

On April 5, 2018, the BOD of the Parent Company approved the adoption of a new ESOP (2018 ESOP; the New Plan) which was ratified by the Parent Company's stockholders on May 28, 2018. As at March 13, 2020, the New Plan is yet to be approved by the SEC. A total of 155.0 million shares of stock were reserved for issue under the New Plan.

The basic terms and conditions of the stock option plans are disclosed in Note 19.

Dividends
Dividends declared and paid by the Parent Company follows:

Year	Type of Dividend	Date of Declaration	Date of Record	Amount Declared	Dividend per Share	Date of Payment/Issuance
2019	***Cash Dividends***	**March 14, 2019**	**March 28, 2019**	**₱957,248**	**₱0.07**	**April 12, 2019**
2018	*Cash Dividends*					
	Regular	March 14, 2018	March 28, 2018	₱912,351	₱0.12	April 10, 2018
	Special	August 28, 2018	September 11, 2018	2,280,879	0.30	September 27, 2018
	Stock Dividends	August 28, 2018	October 23, 2018	3,041,171	80%	November 20, 2018
2017	*Cash Dividends*	March 15, 2017	March 29, 2017	₱608,234	₱0.08	April 11, 2017

Appropriation of Retained Earnings
Parent Company
On November 27, 2018, the Parent Company's BOD approved the appropriation of retained earnings amounting to ₱1,500.0 million in relation to the share buy-back program of the Parent Company.

On November 5, 2013, the Parent Company's BOD approved the appropriation of retained earnings amounting to ₱1,000.0 million, for the construction, operation and maintenance of a bunker-fired diesel power station. In 2018, the power plant started the commercial operations of the two (2) generator sets, hence the reversal of the appropriation which was approved by the Parent Company's BOD on August 7, 2018 (see Note 40g).

HMC
On December 20, 2019, the BOD of HMC approved the reversal of the ₱318.6 million appropriation following the completion of the purchase of mining equipments. On the same date, an appropriation was approved amounting to ₱85.6 million for HMC's capital expenditures for the year 2020.

On December 6, 2018, the BOD of HMC approved the reversal of the ₱95.6 million appropriation following the completion of the purchase of mining equipments. On the same date, an appropriation was approved amounting to ₱318.6 million for HMC's capital expenditures for the year 2019.

On December 7, 2017, the BOD of HMC approved the reversal of the ₱109.0 million appropriation following the completion of the purchase of mining equipments and funding of the final mine rehabilitation fund. On the same date, the BOD of HMC approved the appropriation of retained earnings amounting to ₱95.6 million for HMC's capital expenditures for the year 2018.

Treasury Stock
On November 27, 2018, the BOD of the Parent Company approved to undertake a two (2)-year share buy-back program authorizing management to buy from the market at its discretion the Parent Company's common shares up to an aggregate value of ₱1,500.0 million. As at December 31, 2018, the Parent Company purchased from the market a total of 9,357,000 of its own common shares at an average price of ₱2.1766 per share or a total of ₱20.4 million. As at December 31, 2019, the Parent Company purchased from the market a total of 33,734,000 of its own common shares at an average price of ₱2.6072 per share or a total of ₱88.0 million.

19. **Executive Stock Option Plan**

2018 ESOP
On April 5, 2018, the New Plan was approved by the Parent Company's BOD and was ratified by the stockholders on May 28, 2018. As at March 13, 2020, the New Plan is yet to be approved by the SEC. The basic terms and conditions of the New Plan are as follows:
1. The New Plan covers up to 155.0 million shares allocated to the Parent Company's eligible participants.
2. The eligible participants are the directors and officers of the Parent Company and its operating subsidiaries, specifically those with positions of Assistant Vice President and higher, including the Resident Mine Managers of the subsidiaries.
3. The exercise price is ₱4.38, which is equivalent to ₱2.43 after the effect of stock dividends.
4. The New Plan was granted on June 15, 2018.
5. The term of the New Plan shall be five (5) years and the shares will vest to the participant at the rate of 25% after the first year of the New Plan.
6. The participant can exercise the vested options by giving notice within the term of the New Plan, and can opt to either purchase the shares at the exercise price or request the Parent Company to advance the purchase price and to sell the shares in which case the participant will receive the sales proceeds less the exercise price.

The fair value of the stock option is ₱2.19, which was estimated as at grant date, using the Black Scholes-Merton model, taking into consideration the terms and conditions upon which the options were granted.

2014 ESOP
On March 24, 2014, the Plan was approved by the Parent Company's BOD and was ratified by the stockholders on June 6, 2014. On November 21, 2014, the Plan was approved by the SEC. The basic terms and conditions of the Plan are as follows:
1. The Plan covers up to 32.0 million shares allocated to the Parent Company's eligible participants.
2. The eligible participants are the directors and officers of the Parent Company and its operating subsidiaries, specifically those with positions of Assistant Vice President and higher, including the Resident Mine Managers of the subsidiaries.

3. The exercise prices are as follows:

Exercise prices, before stock dividends	Equivalent exercise prices, after the effect of stock dividends
₱25.52	₱4.73
6.11	3.39
6.04	3.36
5.94	3.30
5.67	3.15
5.62	3.12
5.03	2.79

4. The Plan was granted on June 6, 2014, January 13, 2015 and July 15, 2018.
5. The term of the Plan shall be five (5) years and the shares will vest to the participant at the rate of 25% after the first year of the New Plan or July 18, 2015.
6. The participant can exercise the vested options by giving notice within the term of the Plan, and can opt to either purchase the shares at the exercise price or request the Parent Company to advance the purchase price and to sell the shares in which case the participant will receive the sales proceeds less the exercise price.

The fair values of the stock option are ₱7.53, ₱8.42, and an average of ₱0.23,which were estimated as at grant date, June 6, 2014, January 13, 2015 and July 15, 2018, respectively, using the Black Scholes-Merton model, taking into consideration the terms and conditions upon which the options were granted.

The following assumptions were used to determine the fair value of the stock options at effective grant date:

	2018 ESOP		2014 ESOP	
Grant date	June 15, 2018	July 15, 2018	January 13, 2015	June 6, 2014
Spot price per share	₱5.01	₱4.34	₱15.63	₱28.55
Exercise price	₱4.38	₱5.72*	₱8.51	₱25.52
Expected volatility	45.34%	37.14%	33.52%	33.28%
Option life	5.00 years	0.89 years	4.40 years	5.00 years
Dividend yield	2.16%	2.49%	0.58%	3.88%
Risk-free rate	5.93%	4.52%	3.23%	3.30%

* Based on average exercise prices

The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may also not necessarily be the actual outcome.

There have been no modifications or cancellations in 2019 and 2018.

The following table illustrates the number of stock options and its movements during the year:

	Number of Options		Weighted Average Exercise Price	
	2019	2018	**2019**	2018
2018 ESOP				
Balances at January 1	**278,947,780**	–	**₱2.43**	₱–
Granted	–	154,970,988	–	4.38
Stock dividends	–	123,976,792	–	2.43
Balances at December 31	**278,947,780**	278,947,780	**₱2.43**	₱2.43
2014 ESOP				
Balances at January 1	**103,740,335**	55,027,152	**₱8.38**	₱8.51
Granted	–	2,606,367	–	5.72
Stock dividends	–	46,106,816	–	8.38
Forfeited	**(103,740,335)**	–	**8.38**	–
Balances at December 31	–	103,740,335	**₱–**	₱8.38

As at March 13, 2020, the Parent Company is still waiting for SEC's approval of the exemption from registration of 170,083,608 common shares, which shall form part of the ESOP.

The movements in the cost of share-based payment plan included in equity are as follows:

	2019	2018
Balances at January 1	**₱240,003**	₱137,635
Stock option expense (see Note 27)	**130,519**	102,368
Balances at December 31	**₱370,522**	₱240,003

The weighted average remaining contractual life of options outstanding under the New Plan was three and a half (3.5 years) and four and a half (4.5) years as at December 31, 2019 and 2018, respectively.

The weighted average remaining contractual life of options outstanding under the Plan was nil and approximately half (0.5) year as at December 31, 2019 and 2018, respectively.

In 2019, 2018 and 2017, the cost of share-based payment plan amounting to ₱130.5 million, ₱102.4 million and ₱11.0 million, respectively, are included in "Personnel costs" (see Note 27).

20. Earnings Per Share

The following reflects the income and share data used in the basic and diluted EPS computations:

	2019	2018	2017
Net income attributable to equity holders of the parent	**₱2,684,969**	₱3,008,057	₱2,770,768
Preferred stock dividends	**504**	504	504
Net income attributable to equity holders of the parent for basic earnings	**2,684,465**	3,007,553	2,770,264
Dividends on dilutive potential ordinary shares	–	–	–
Net income attributable to ordinary equity holders of the parent adjusted for the effect of dilution	**₱2,684,465**	₱3,007,553	₱2,770,264
Weighted average number of common shares for basic EPS	**13,670,302,784**	13,684,492,367	13,685,272,117
Effect of dilution from stock options	–	–	–
Weighted average number of common shares adjusted for the effect of dilution	**13,670,302,784**	13,684,492,367	13,685,272,117
Basic/Diluted EPS	**₱0.20**	₱0.22	₱0.20

There have been no other transactions involving ordinary shares or potential ordinary shares between the end of the financial reporting period and the date of authorization of the consolidated financial statements.

21. Cost of Sales

	2019	2018	2017
Cost of sale of:			
Ore	**₱6,742,188**	₱6,467,649	₱5,717,282
Limestone	**262,668**	303,304	315,959
Quarry materials	**101,014**	–	–
	₱7,105,870	₱6,770,953	₱6,033,241

Details of cost of sales follow:

	2019	2018	2017
Production overhead	**₱3,213,083**	₱3,071,357	₱2,490,866
Outside services	**2,105,632**	1,858,540	1,673,832
Personnel costs (see Note 27)	**1,233,786**	1,137,002	972,142
Depreciation, amortization and depletion (see Note 28)	**851,193**	856,623	939,804
Long-term stockpile inventory sold (see Note 12)	–	218,663	163,471
	7,403,694	7,142,185	6,240,115
Net changes in beneficiated nickel ore and limestone	**(297,824)**	(371,232)	(206,874)
	₱7,105,870	₱6,770,953	₱6,033,241

Production overhead consists of fuel, oil and lubricants, materials and supplies, equipment rentals and other miscellaneous charges.

Outside services pertain to services offered by the contractors related to the mining activities of the Group. These services include, but are not limited to, hauling, stevedoring, maintenance, security and equipment rental.

22. Cost of Power Generation

	2019	2018	2017
Depreciation and amortization (see Note 28)	**₱211,076**	₱179,392	₱154,024
Overhead	**57,045**	64,608	29,477
Purchased power	**33,561**	47,442	33,092
Materials and supplies	**25,043**	16,725	631
Personnel costs (see Note 27)	**22,742**	19,124	10,461
Outside services	**14,323**	11,771	10,135
Distribution wheeling service charges	**13,677**	21,560	19,456
	₱377,467	₱360,622	₱257,276

Overhead in cost of power generation consists of insurance, taxes and licenses, utilities and other miscellaneous charges.

Distribution wheeling service charges pertain to the payments made to Manila Electric Company (Meralco) and Leyte V Electric Cooperative (LEYECO V) for the conveyance of electricity through Meralco's and LEYECO V's distribution systems.

23. **Cost of Services**

	2019	2018	2017
Depreciation (see Note 28)	**₱107,460**	₱99,651	₱106,032
Personnel costs (see Note 27)	**101,507**	97,888	101,470
Overhead	**85,999**	83,779	69,063
Equipment operating cost	**27,007**	26,762	22,331
Outside services	**9,846**	10,178	9,798
	₱331,819	₱318,258	₱308,694

24. **Excise Taxes and Royalties**

	2019	2018	2017
Royalties (see Notes 40e and 40r)	**₱1,113,324**	₱1,094,367	₱805,744
Excise taxes (see Note 40e)	**673,999**	709,662	297,942
	₱1,787,323	₱1,804,029	₱1,103,686

25. **Shipping and Loading Costs**

	2019	2018	2017
Contract fees	**₱1,101,224**	₱1,184,594	₱1,007,742
Supplies and fuel, oil and lubricants	**342,590**	380,016	289,402
Depreciation and amortization (see Note 28)	**127,992**	140,047	177,043
Other services and fees	**103,250**	159,351	225,310
Personnel costs (see Note 27)	**91,960**	85,481	69,613
	₱1,767,016	₱1,949,489	₱1,769,110

26. **General and Administrative**

	2019	2018	2017
Personnel costs (see Note 27)	**₱514,501**	₱533,639	₱353,527
Taxes and licenses	**138,416**	162,794	65,195
Outside services	**120,464**	124,004	120,282
Depreciation and amortization (see Note 28)	**98,065**	69,871	58,464
Transportation and travel	**41,624**	36,809	42,097
Supplies	**37,555**	39,910	24,590
Publicity and promotion	**35,808**	23,960	15,086
Entertainment, amusement and recreation	**21,948**	45,665	18,700
Dues and subscription	**20,202**	15,905	15,951

(Forward)

	2019	2018	2017
Repairs and maintenance	**₱12,710**	₱20,184	₱21,186
Communications, light and water	**11,322**	12,865	14,464
Rentals (see Note 34)	**9,782**	36,247	34,276
Donations	**5,396**	3,310	3,190
Others	**88,191**	87,878	76,145
	₱1,155,984	₱1,213,041	₱863,153

Other general and administrative expense is composed of other service fees and other numerous transactions with minimal amounts.

27. Personnel Costs

	2019	2018	2017
Salaries, wages and employee benefits	**₱1,748,500**	₱1,677,926	₱1,412,942
Cost of share-based payment plan (see Note 19)	**130,519**	102,368	11,013
Pension cost (see Note 36)	**85,477**	92,840	83,258
	₱1,964,496	₱1,873,134	₱1,507,213

The amounts of personnel costs are distributed as follows:

	2019	2018	2017
Cost of:			
Sales (see Note 21)	**₱1,233,786**	₱1,137,002	₱972,142
Services (see Note 23)	**101,507**	97,888	101,470
Power generation (see Note 22)	**22,742**	19,124	10,461
General and administrative (see Note 26)	**514,501**	533,639	353,527
Shipping and loading costs (see Note 25)	**91,960**	85,481	69,613
	₱1,964,496	₱1,873,134	₱1,507,213

28. Depreciation, Amortization and Depletion

The amounts of depreciation, amortization and depletion expense, including amortization of ROU assets, are distributed as follows:

	2019	2018	2017
Cost of:			
Sales (see Note 21)	**₱851,193**	₱856,623	₱939,804
Power generation (see Note 22)	**211,076**	179,392	154,024
Services (see Note 23)	**107,460**	99,651	106,032
Shipping and loading costs (see Note 25)	**127,992**	140,047	177,043
General and administrative (see Note 26)	**98,065**	69,871	58,464
Others	**8,579**	10,005	46,585
	₱1,404,365	₱1,355,589	₱1,481,952

The above is distributed as follows:

	2019	2018	2017
Property and equipment (see Note 9)	**₱1,398,310**	₱1,352,605	₱1,480,045
Computer software under "Other noncurrent assets" (see Note 13)	**6,055**	2,984	1,907
	₱1,404,365	₱1,355,589	₱1,481,952

29. **Finance Income**

	2019	2018	2017
Interest income from:			
Cash and cash equivalents (see Note 4)	**₱239,018**	₱188,136	₱134,248
Financial assets at (see Note 7):			
FVOCI	**106,372**	98,723	–
Amortized cost	**18,787**	30,582	–
FVTPL	**5,003**	4,361	–
Loans (see Note 40a)	**25,862**	24,490	27,145
MRF (see Note 13)	**7,053**	4,962	3,103
Long-term negotiable instruments (see Notes 8 and 13)	**2,387**	2,284	1,305
Pension (see Note 36)	**870**	150	300
SDMP funds (see Note 13)	**246**	158	148
Short-term cash investments (see Note 8)	–	944	–
AFS financial assets (see Note 7)	–	–	135,557
Others	–	13	161
	₱405,598	₱354,803	₱301,967

30. **Finance Expenses**

	2019	2018	2017
Interest expense on:			
Short-term debt (see Notes 15 and 34)	**₱117,722**	₱29,242	₱4,284
Long-term debts (see Notes 15 and 34)	**65,642**	116,887	179,535
Pension (see Note 36)	**24,922**	19,447	17,907
Guarantee service fee (see Notes 34 and 40f)	**64,312**	65,148	66,656
Accretion of interest on:			
Lease liabilities (see Note 35)	**55,342**	–	–
Provision for mine rehabilitation and decommissioning (see Note 16)	**14,738**	13,746	16,123
Long-term payable (see Note 17)	**977**	1,155	1,322
Loss on debt extinguishment	–	–	3,433
	₱343,655	₱245,625	₱289,260

31. **Other Income (Charges)** - net

	2019	2018	2017
Gain (loss) on:			
Changes in fair value of financial assets at FVTPL (see Note 7)	**₱347,725**	(₱143,711)	₱–
Write-off of deposit for aircraft acquisition (see Notes 13 and 40q)	**(99,139)**	–	–
Exchange of assets (see Note 40q)	**39,986**	–	–
Sale of financial assets at (see Note 7):			
FVOCI	**19,055**	(49,456)	–
Amortized cost	**200**	2,353	–
Sale of property and equipment	**(14,020)**	59,683	(4,508)
Write-off of input VAT	**(1,624)**	(2,267)	(12,504)
Sale of investment in subsidiaries	**881**	–	–
Write-off of trade and other receivables (see Note 5)	**–**	(7,363)	–
Write-off of investment property	**–**	(1,623)	–
Sale of AFS financial assets (see Note 7)	**–**	–	14,336
Foreign exchange gains (losses) - net	**(263,694)**	362,790	80,295
Special projects	**80,808**	73,491	62,732
Dividend income (see Note 7)	**45,539**	38,849	36,967
Reversals of allowance (provisions) for ECL on trade and other receivables - net (see Note 5)	**16,829**	(9,924)	–
Rent income	**14,755**	15,499	20,788
Management fee	**(14,287)**	(17,804)	(22,171)
Reversals of allowance (provisions) for impairment losses on:			
Materials and supplies (see Note 6)	**(11,591)**	(18,966)	(7,348)
Input VAT (see Note 13)	**(725)**	–	21,209
Advances and deposits to suppliers and contractors (see Note 8)	**–**	(514,856)	–
Beneficiated nickel ore inventory (see Note 6)	**–**	1,718	6,104
Deferred mine exploration costs (see Note 13)	**–**	(15)	(1,233)
AFS financial assets (see Note 7)	**–**	–	(133,320)
Property and equipment	**–**	–	12,825
Others - net	**8,126**	(5,399)	(1,523)
	₱168,824	(₱217,001)	₱72,649

Breakdown of foreign exchange gains (losses) - net follows:

	2019	2018	2017
Realized foreign exchange gains (losses) - net	**(₱105,952)**	₱254,472	₱101,711
Unrealized foreign exchange gains (losses) - net on:			
Cash and cash equivalents	**(212,905)**	149,317	(22,430)
Long-term debt	**55,612**	(46,137)	11,677
Financial assets at (see Note 7):			
FVOCI	**(26,843)**	26,669	–
FVTPL	**(18,912)**	23,856	–
Trade and other payables	**44,287**	(58,716)	(5,131)
Trade and other receivables	**1,019**	1,136	(6,565)
Prepayments and other current assets	**–**	12,193	–
AFS financial assets	**–**	–	1,033
	(₱263,694)	₱362,790	₱80,295

32. **Revenue from Contracts with Customers**

Disaggregated Revenue Information

The table below shows the disaggregation of revenues of the Group by location of the customers for sale of ore, limestone and quarry materials, type of services rendered for sale of services and others and source of electricity for sale of power for the years ended December 31, 2019 and 2018:

2019	**China**	**Local**	**Japan**	**Total**
Sale of (see Notes 34 and 40d):				
Ore	**₱10,845,464**	**₱3,541,206**	**₱1,868,881**	**₱16,255,551**
Limestone	**–**	**414,185**	**–**	**414,185**
Quarry materials	**–**	**179,579**	**–**	**179,579**
	₱10,845,464	**₱4,134,970**	**₱1,868,881**	**₱16,849,315**

2018	China	Local	Japan	Total
Sale of (see Notes 34 and 40d):				
Ore	₱10,899,779	₱4,096,407	₱2,298,112	₱17,294,298
Limestone	–	447,262	–	447,262
	₱10,899,779	₱4,543,669	₱2,298,112	₱17,741,560

	2019	2018
Services and others (see Note 34)		
Materials handling and others	**₱681,728**	₱627,705
Sale of power (see Notes 40g and 40p)		
Solar	**₱235,557**	₱239,934
Diesel	**44,745**	16,083
	₱280,302	₱256,017

Timing of recognition:

	2019	2018
At a point in time	**₱16,849,315**	₱17,741,560
Over time	**962,030**	883,722
	₱17,811,345	₱18,625,282

All revenue from sale of ore, limestone and quarry materials are recognized at a point in time when control transfers to the customer, which occurs at a point in time when the ore is physically transferred into a vessel or when the ore passes into the ore preparation hopper of the HPAL plants and when the limestone and/or quarry materials were delivered to the buyer.

Revenue from sale of services and others is recognized over time or as the services are rendered while revenue from sale of power is recognized over time based on the actual energy dispatched.

33. Material Partly-Owned Subsidiaries

Financial information of subsidiaries that have material NCI are provided below:

Proportion of equity interest held by NCI:

	Principal Place of Business	**2019**	2018
RTN	Philippines	**40.00%**	40.00%
TMC	Philippines	**35.00%**	35.00%

Equity attributable to material NCI:

	2019	2018
RTN	**₱1,037,983**	₱1,057,643
TMC	**2,527,039**	2,495,979

Net income attributable to material NCI:

	2019	2018
RTN	**₱272,716**	₱540,423
TMC	**901,169**	883,477

Other comprehensive income (loss) attributable to material NCI:

	2019	2018
RTN	**(₱15,196)**	(₱8,942)
TMC	**3,060**	6,435

The summarized financial information of these subsidiaries are based on amounts before inter-company eliminations.

The summarized statements of comprehensive income for the years ended December 31, 2019 and 2018 follows:

	2019		2018	
	RTN	TMC	RTN	TMC
Revenues	**₱3,492,717**	**₱8,688,314**	₱4,602,188	₱8,285,905
Cost of sales and services	**(1,986,260)**	**(3,289,328)**	(2,044,815)	(2,776,580)
Operating expenses	**(560,666)**	**(2,102,107)**	(797,151)	(2,035,748)
Finance income - net	**24,177**	**45,220**	24,935	29,995
Other income - net	**15,925**	**223,059**	136,314	96,606
Income before income tax	**985,893**	**3,565,158**	1,921,471	3,600,178
Provision for income tax - net	**(304,104)**	**(990,390)**	(570,414)	(1,075,958)
Net income	**681,789**	**2,574,768**	1,351,057	2,524,220
Other comprehensive income (loss) - net	**(37,989)**	**8,743**	(22,356)	18,386
Total comprehensive income - net	**₱643,800**	**₱2,583,511**	₱1,328,701	₱2,542,606
Attributable to NCI	**₱257,520**	**₱904,229**	₱531,480	₱889,912
Dividends paid to NCI	**280,000**	**875,000**	520,000	735,000

The summarized statements of financial position as at December 31, 2019 and 2018 follows:

	RTN		TMC	
	2019	2018	2019	2018
Current assets	**₱2,662,229**	₱3,276,512	**₱6,341,398**	₱5,885,482
Noncurrent assets	**1,029,039**	965,385	**4,777,573**	4,466,142
Current liabilities	**(773,615)**	(1,437,102)	**(2,628,951)**	(1,897,759)
Noncurrent liabilities	**(322,695)**	(160,687)	**(1,269,908)**	(1,322,495)
Total equity	**₱2,594,958**	₱2,644,108	**₱7,220,112**	₱7,131,370
Attributable to equity holders of parent	**₱1,556,975**	₱1,586,465	**₱4,693,073**	₱4,635,390
NCI	**1,037,983**	1,057,643	**2,527,039**	2,495,980

The summarized cash flow information for the years ended December 31, 2019 and 2018 follows:

	RTN		TMC	
	2019	2018	2019	2018
Operating	**₱953,728**	₱1,505,259	**₱3,435,428**	₱3,278,383
Investing	**(132,957)**	(280,653)	**(512,530)**	(351,028)
Financing	**(1,278,708)**	(1,418,487)	**(2,237,422)**	(2,042,936)
Net increase (decrease) in cash and cash equivalents	**(₱457,937)**	(₱193,881)	**₱685,476**	₱884,419

34. **Related Party Transactions**

Related party relationships exist when one party has the ability to control, directly or indirectly through one or more intermediaries, the other party or exercise significant influence over the other party in making financial and operating decisions. Such relationship also exist between and/or among entities which are under common control with the reporting enterprise, or between and/or among the reporting enterprise and their key management personnel, directors, or its stockholders.

Set out on next page are the Group's transactions with related parties in 2019, 2018 and 2017, including the corresponding assets and liabilities arising from the said transactions as at December 31, 2019 and 2018.

	Amount			Trade and Other Receivables (see Note 5)		Trade and Other Payables (see Note 14)		Amounts Owed by Related Parties (see Note 5)		Amounts Owed to Related Parties (see Note 14)		Short-term and Long-term Debts (see Note 15)			
	2019	2018	2017	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	Terms	Conditions
Stockholders															
PAMCO															
Sale of ore (see Note 40d)	**₱1,868,881**	₱2,298,112	₱2,480,426	**₱15,782**	₱95,426	**₱–**	₱–	**₱–**	₱–	**₱–**	₱–	**₱–**	₱–	90% upon receipt of documents and 10% after the final dry weight and applicable assay have been determined; noninterest- bearing	Unsecured; no guarantee
Draft survey fee	**262**	267	602	**–**	–	**51**	–	**–**	–	**–**	–	**–**	–	Payable on demand; noninterest-bearing	Unsecured; no guarantee
Despatch (demurrage)	**(12,768)**	6,419	6,153	**293**	–	**17,063**	–	**–**	–	**–**	–	**–**	–	Collectible on demand; noninterest-bearing	Unsecured; no guarantee
Other service fee	**619**	1,818	99	**–**	–	**–**	1,047	**–**	–	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
Dividends	**1,180,622**	1,343,505	1,541,009	**–**	–	**574,400**	663,500	**–**	–	**–**	–	**–**	–	Payable on agreed pay-out date	Unsecured; no guarantee
Sumitomo Metal Mining Philippine Holdings Corporation															
Short-term advances	**1,250**	1,250	1,269	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
SMM															
Guarantee service fee (see Notes 30 and 40f)	**64,312**	65,148	66,656	**–**	–	**19,362**	20,236	**–**	–	**–**	–	**–**	–	Every twenty first (21st) of February, March, August and September	Unsecured
Interest expense on long-term debt (see Notes 15 and 30)	**–**	137	1,466	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Payable semi-annually on February 28 and August 31	Secured; with guarantee
Nickel Asia Holdings Inc.															
Short-term advances	**–**	1	1	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
Dividends	**504**	504	504	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Payable on demand	Unsecured; no guarantee

(Forward)

	Amount			Trade and Other Receivables (see Note 5)		Trade and Other Payables (see Note 14)		Amounts Owed by Related Parties (see Note 5)		Amounts Owed to Related Parties (see Note 14)		Short-term and Long-term Debts (see Note 15)			
	2019	2018	2017	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	Terms	Conditions
With Common Stockholders															
Manta															
Rentals, dues and utilities	**₱35,710**	₱32,606	₱28,626	**₱–**	₱–	**₱248**	₱632	**₱–**	₱–	**₱–**	₱–	**₱–**	₱–	Payable upon billing; noninterest-bearing	Unsecured; no guarantee
Rental deposits	**9,024**	17,789	10,205	**–**	–	**19**	–	**–**	–	**–**	–	**–**	–	Collectible at the end of the lease; noninterest-bearing	Unsecured; no guarantee
Interest expense on short-term debt (see Notes 15 and 30)	**–**	–	4,284	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Interest is payable at the end of the loan agreement	Unsecured; no guarantee
Sale of power (see Note 40p)	**19,091**	27,841	28,165	**–**	2,355	**–**	–	**–**	–	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
Associates															
CBNC															
Sale of ore and limestone	**1,516,052**	1,959,845	1,319,472	**83,902**	155,768	**–**	–	**–**	–	**–**	–	**–**	–	Thirty (30) days term; noninterest-bearing	Unsecured; no guarantee
Materials handling	**232,868**	204,694	162,627	**94,211**	42,860	**–**	–	**–**	–	**–**	–	**–**	–	Fifteen (15) days term; noninterest-bearing	Unsecured; no guarantee
Infralease and throughput	**7,429**	14,350	63,251	**12,737**	21,840	**–**	–	**–**	–	**–**	–	**–**	–	Collectible at the end of February and August; noninterest-bearing	Unsecured; no guarantee
Other income	**130,735**	69,829	52,531	**12,735**	19,995	**–**	–	**–**	–	**–**	–	**–**	–	Collectible on demand; noninterest-bearing	Unsecured; no guarantee
THNC															
Sale of ore	**2,319,198**	2,427,682	1,574,639	**120,364**	156,275	**–**	–	**–**	–	**–**	–	**–**	–	Thirty (30) days term, noninterest-bearing	Unsecured; no guarantee
Sale of quarry materials	**179,579**	–	–	**92,633**	–	**–**	–	**–**	–	**–**	–	**–**	–	Thirty (30) days term, noninterest-bearing	Unsecured; no guarantee
Rendering of service (see Note 40b)	**148,031**	159,060	139,819	**34,938**	37,153	**–**	–	**–**	–	**–**	–	**–**	–	Semi-annual term; noninterest-bearing	Unsecured; no guarantee
Materials handling (see Note 34a)	**259,713**	233,103	287,750	**33,227**	20,655	**–**	–	**–**	–	**–**	–	**–**	–	Fifteen (15) days term; noninterest-bearing	Unsecured; no guarantee
Rental income (see Note 40m)	**6,942**	6,703	6,703	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Collectible on demand; noninterest-bearing	Unsecured; no guarantee
Rental deposit payable	**119**	–	–	**–**	–	**3,471**	3,352	**–**	–	**–**	–	**–**	–	Collectible at the end of the lease term; noninterest-bearing	Unsecured; no guarantee

(Forward)

	Amount			Trade and Other Receivables (see Note 5)		Trade and Other Payables (see Note 14)		Amounts Owed by Related Parties (see Note 5)		Amounts Owed to Related Parties (see Note 14)		Short-term and Long-term Debts (see Note 15)			
	2019	2018	2017	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	Terms	Conditions
THNC															
Loan facility	**₱–**	₱–	₱–	**₱–**	₱–	**₱–**	₱–	**₱–**	₱–	**₱–**	₱–	**₱1,019,029**	₱1,150,188	Principal is payable in semi-annual installments, interest is based on one hundred eighty (180)-day British Banker Association LIBOR plus 2% spread	Unsecured; no guarantee
Interest expense on long-term debt (see Notes 15 and 30)	**49,581**	51,633	42,645	**–**	–	**7,915**	9,814	**–**	–	**–**	–	**–**	–	Payable semi-annually on April 10 and October 10	Unsecured; no guarantee
Rendering of other service	**–**	–	4,170	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
Short-term advances	**27,420**	21,766	20,651	**–**	–	**–**	–	**2,533**	4,342	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing; with allowance for ECL of ₱4.2 million as of December 31, 2019 and 2018	Unsecured; no guarantee
Affiliates															
OGI															
Short-term advances	**43,633**	58,482	5,677	**–**	–	**–**	–	**–**	–	**1,135,911**	1,179,544	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
Orka Geothermal Holdings, Inc.															
Short-term advances	**–**	–	–	**–**	–	–	–	**666**	666	**–**	–	**–**	–	Collectible upon billing; noninterest-bearing	Unsecured; no guarantee
BGHI															
Short-term advances	**–**	–	–	**–**	–	–	–	**19**	19	**4,194,305**	4,194,305	**–**	–	Collectible upon billing; Covered by Investment Agreement (see Note 40j); noninterest-bearing	Unsecured; no guarantee
				₱500,822	₱552,327	**₱622,529**	₱698,581	**₱3,218**	₱5,027	**₱5,330,216**	₱5,373,849	**₱1,019,029**	₱1,150,188		

Terms and Conditions of Transactions with Related Parties
All sales to and purchases from related parties are made at prevailing market prices. Outstanding balances as at December 31, 2019 and 2018 pertain to the extension and receipt of advances to and from related parties and these are unsecured, short-term, interest-free and settlement occurs in cash. Except for the guarantee on CBNC, THNC and EPI's Loan Obligations (see Note 40f and 40r), there have been no guarantees received or provided for any related party receivables or payables, respectively. This assessment is undertaken at each end of the financial reporting period through the examination of the financial position of the related party and the market in which the related party operates.

a. Sales and Service Agreements

Nickel Ore Sale Agreements with PAMCO
The Group supplies saprolite ore to PAMCO. PAMCO is a stockholder of the Parent Company, RTN and TMC. All sales made to PAMCO are transacted at prevailing market prices. Under the terms of the agreement, the base price of the ore products for a specific shipment shall be based on London Metal Exchange (LME). Effective April 2014, ore sales to PAMCO are benchmarked to China prices on the basis of a negotiated price per wet metric ton (WMT) of ore. PAMCO shall pay the Group 80% to 90% of the provisional invoice amount upon receipt of the required documents and pay the final payment of each shipment after the final dry weight and applicable assay have been determined. Outstanding balances as at December 31, 2019 and 2018 are unsecured, interest-free and settlement occurs in cash. Receivable from PAMCO is included as part of "Trade and other receivables" and is expected to be collected subsequently.

Nickel Ore Sale Agreement with PAMCO and Sojitz
RTN supplies saprolite ore to PAMCO under a sale agreement, which shall continue to be valid and in effect until December 2020, wherein PAMCO appointed Sojitz as agent. PAMCO owns 36% and Sojitz owns 4% of the outstanding capital stock of RTN.

The Group's revenue from sale of ore to PAMCO and/or Sojitz amounted to ₱1,868.9 million, ₱2,298.1 million and ₱2,480.4 million in 2019, 2018 and 2017, respectively.

Nickel Ore Supply Agreement with CBNC
RTN entered into an agreement with CBNC to supply all of the limonite ore requirements for the Coral Bay HPP facility until the earlier of the cessation of operations at the Coral Bay HPP facility and exhaustion of the limonite ore reserves at the Rio Tuba mine. RTN has also entered into an agreement with CBNC to supply limestone and provide ancillary services to the Coral Bay HPAL facility. CBNC is the owner of the Coral Bay HPP facility. Receivable from CBNC is included as part of "Trade and other receivables" and is expected to be collected subsequently.

Sale of ore to CBNC amounted to ₱1,203.1 million, ₱1,664.0 million and ₱988.4 million in 2019, 2018 and 2017, respectively.

Nickel Ore Supply Agreement with THNC
TMC entered into an agreement with THNC covering the sale of its ore products. Under the terms of the agreement, the base price of the ore products for a specific shipment shall be based on LME.

Sale of ore to THNC amounted to ₱2,319.2 million, ₱2,427.7 million and ₱1,574.6 million in 2019, 2018 and 2017, respectively.

Service Agreements with CBNC
RTN entered into various service agreements with CBNC pertaining to materials handling and others. The revenue of the Group related to materials handling for CBNC amounted to ₱232.9 million, ₱204.7 million and ₱162.6 million in 2019, 2018 and 2017, respectively.

Materials Handling Agreement with THNC
On October 7, 2013, TMC and THNC executed an agreement wherein TMC will render services related to the handling, hauling and transport of cargo for THNC. THNC shall compensate TMC based on the prices stipulated in the agreement which are determined on the basis of the weight of the cargo. Payment is collected within fifteen (15) days from receipt of TMC's billing. The revenue of the Group related to materials handling for THNC amounted to ₱259.7 million, ₱233.1 million and ₱287.7 million in 2019, 2018 and 2017, respectively.

Materials Supply Agreement with THNC
On October 1, 2019, TMC and THNC entered into a materials supply agreement wherein THNC agrees to purchase and take delivery from TMC an aggregate of 1,000,000 compacted cubic meters of suitable and unsuitable construction materials for THNC's expansion of its tailing storage facility. The contract period is from September 1, 2019 to December 31, 2020.

TMC's revenue from the sale of quarry materials amounted to ₱179.6 million in 2019.

b. Stockholder Agreements

THNC Stockholder's Agreement
On September 15, 2010, NAC, SMM and Mitsui executed a Stockholders Agreement, pursuant to which the parties formed a joint venture company, THNC, to build and operate a plant in Barangay Taganito, Claver, Surigao del Norte for the purpose of producing and selling nickel-cobalt mixed sulfide to be used in the production of electrolytic nickel and electrolytic cobalt.

Pursuant to the Stockholders Agreement, SMM granted THNC a non-exclusive license of technology owned by SMM to produce the products and has undertaken to provide technical assistance to THNC. The Parent Company has undertaken to cause TMC to supply THNC with nickel ore and limestone and to further cause TMC to make available to THNC the use of the land and infrastructure necessary for the production of the products while Mitsui shall assist THNC in procuring materials and equipment necessary for the mine's operations. The Stockholders Agreement shall terminate upon the dissolution of THNC.

The Parent Company, along with the other stockholders of THNC, also agreed to make loans to THNC or guarantee the repayment of THNC's loan obligations in accordance with the financial requirements of THNC, in proportion to their shareholding ratio in THNC.

In a separate agreement dated December 9, 2011, SMM agreed to assume the Parent Company's obligation to make loans to, or guarantee the repayment of THNC's loan obligations. The Parent Company, in consideration for this agreement, pays SMM an annual guarantee fee of 1% of THNC's outstanding loan obligations.

c. Other Agreements

Funding Commitment with SMM
RTN's long-term debt was incurred to complete infrastructure projects to support the development of the Coral Bay HPAL facility. These projects included the causeway, trestles and dolphins in the Rio Tuba foreshore and offshore areas.

Funding Commitment with THNC
TMC as owner/developer of TSEZ incurred a long-term debt to finance the construction of the pier facilities that will be utilized to support the operations of the Taganito HPAL facility. These projects included the jetty, dolphins, rubber fender, jettybollard and other pier facilities in the Taganito foreshore and offshore areas (see Note 15).

d. Compensation of Key Management Personnel

The Group considers as key management personnel the employees holding managerial positions up to the chairman. The short-term benefits of key management personnel of the Group in 2019, 2018 and 2017 amounted to about ₱460.7 million, ₱434.4 million and ₱274.9 million, respectively, inclusive of cost of share-based payment of ₱130.5 million, ₱102.4 million and ₱11.0 million, respectively. The post-employment benefits of key management personnel of the Group amounted to ₱14.6 million, ₱17.3 million, and ₱16.7 million in 2019, 2018 and 2017, respectively.

The Group's related party transactions which are 10% and above of the consolidated total assets are reviewed and approved by the Related Party Transactions Committee.

35. **Leases**

Lease Agreement with Manta
On March 18, 2013, the Group entered into a lease agreement with Manta for its office and parking space. The lease agreement is effective for a period of five (5) years starting May 15, 2013 and is renewable subject to negotiation of the terms and conditions and mutual agreement of both parties. The lease agreement expired in May 2018 and was renewed for another period of five (5) years.

Lease of Project Area from SBMA
On April 29, 2015, Jobin entered into a fifty (50) year lease agreement with SBMA for the use of the 800 hectares project area located at Mt. Sta. Rita, SBFZ for its solar and wind energy projects on a monthly lease payment amounting to ₱34,000 per MW installed on the leased area.

On September 18, 2015, the Lease Agreement was amended, and the following conditions were added:
- change Jobin's submission to SBMA of the result of the survey on the leased areas from within "one (1) month" to "four (4) months" from the signing of the Lease Agreement;
- delete all references to "Business Permit to Operate" and replacing it with "Certificate of Registration/Certificate of Registration and Tax Exemption";
- modify Jobin's investment commitment; and
- clarify Item b, Section 6 (Special Conditions), Article IV.

On June 9, 2016, a second amendment was made to include Jobin's advance payment as compensation for forty (40) farmer members of the Mabiga Community Farmers Association, Inc. (MCFAI) for the trees planted within the land affected by Jobin's renewable energy projects.

On Feb. 5, 2018, a third amendment was executed to include Jobin's advance payment to eleven (11) more MCFAI farmers for the trees planted within the land affected by Jobin's renewable energy projects.

On June 7, 2019, a fourth amendment to the Lease Agreement was entered to document the following updated terms:

- Amended rent - From execution of the fourth amendment, the monthly rent shall be ₱1.1 million, and from December 31, 2030, the monthly rent shall be ₱5.1 million. Jobin also committed, upon execution of the fourth amendment, to remit as advance rental payment an amount of ₱40.0 million, to be applied against future rental obligations starting December 31, 2030.
- Investment commitment - Jobin undertakes to infuse investment worth US$200.0 million on the leased areas on or before December 30, 2030.
- Pamulaklakin road upgrade - Jobin undertakes to construct and/or upgrade the Pamulaklakin road, from the Pamulaklakin junction up to Jobin's alpha station.
- Utility posts - Jobin shall install utility posts for transmission lines from the leased areas to the NGCP service substation in coordination with the Subic Enerzone Corporation.
- Power generation facility - Jobin shall construct a 150MW capacity generation facility and/or power plant that uses renewable energy source until December 31, 2030.
- Performance bond - Jobin shall deliver a noninterest-bearing performance bond amounting to ₱10.0 million. The performance bond is included under "Other noncurrent assets".
- Term - the term of the Lease Agreement shall be for a period of fifty (50) years from August 9, 2015 and continuing until August 8, 2065.
- Renewal - subject to the extension or renewal by the SEC of Jobin's corporate life as well as the consent of the Indigenous Cultural Communities of Aeta through its Free and Prior Informed Consent, the Lease Agreement may be renewed for another twenty five (25) years under the same terms and conditions upon mutual consent of the parties.
- Pre-Termination - grounds for pre-termination by SBMA shall include but not be limited to: a) failure to pay rent; b) failure to infuse the committed amount of investment; c) willful failure to comply with SBMA environmental standards; and/or d) smuggling. Jobin will be given a ninety (90)-day period to cure such contractual breach.
- Land use/zoning - in case of pre-termination due to re-zoning or change in the land use/master plan, SBMA shall reimburse Jobin of the cost of equipment, improvements and developments that cannot be moved.

Lease of NGCP Facility
On September 18, 2015, Jobin entered into a fifty (50) year lease agreement with SBMA for the use of a 280 sq. m. building and 2,300 sq. m. lot located near the NGCP Facility, Subic Gateway Park, SBFZ on a monthly rental of ₱0.04 million and ₱0.26 million, respectively.

The lease agreement is also subject to the following terms and condition:

- in addition to the monthly rental, Jobin shall pay 5% of the appraised value of the leased property as share of the Aeta Community for areas covered by Certificate of Ancestral Domain Title;
- Jobin is given a grace period of two (2) years (free of rent) between the period September 12, 2015 to September 11, 2017; and
- the lease agreement is subject to a 6% annual escalation beginning on the second year of the lease and imposable annually thereafter.

The Group also has certain leases of properties with lease terms of twelve (12) months or less and leases of properties with low value. The Group applies the "short-term lease" and "lease of low-value assets" recognition exemptions for these leases.

The lease liabilities as at December 31, 2019, discounted using incremental borrowing rate are as follows:

Lease liabilities	₱606,678
Less noncurrent portion	581,537
Current portion	₱25,141

The following are the amounts recognized in the consolidated statements of income in 2019:

Expenses relating to short-term leases	₱474,555
Accretion of interest on lease liabilities (see Note 30)	55,342
Amortization of ROU asset included in property and equipment (see Note 9)	39,081
Expenses relating to leases of low-value assets	2,209
	₱571,187

Expenses under shipping and loading costs amounting to ₱464.7 million and covered by service agreements are included above in compliance with PFRS 16.

The rollforward analysis of lease liabilities as at December 31, 2019 follows:

Balance as at January 1, 2019, as previously reported	₱–
Effect of PFRS 16 adoption (see Note 2)	639,885
Balance as at January 1, 2019, as restated	639,885
Additions	1,724
Accretion of interest (see Note 30)	55,342
Payments	(90,273)
Balance as at December 31, 2019	₱606,678

Shown below is the maturity analysis of the undiscounted lease payments:

	2019	2018
One (1) year	**₱52,246**	₱95,959
more than one (1) year to two (2) years	**54,329**	51,736
more than two (2) years to three (3) years	**56,595**	53,847
more than three (3) years to four (4) years	**26,574**	56,085
more than four (4) years	**3,616,090**	3,650,411
	₱3,805,834	₱3,908,038

36. **Pension Liability**

The existing regulatory framework, RA 7641, *The Retirement Pay Law,* requires a provision for retirement pay to qualified private sector employees in the absence of any retirement plan in the entity, provided however that the employee's retirement benefits under any collective bargaining and other agreements shall not be less than those provided under the law. The law does not require minimum funding of the plan.

The following tables summarize the pension liability and pension asset recognized in the consolidated statements of financial position:

	2019	2018
Funded pension liabilities:		
TMC	**₱158,949**	₱158,523
RTN	**150,835**	102,721
CMC	**64,880**	47,525
NAC	**18,516**	19,136
	₱393,180	₱327,905
Funded pension asset:		
HMC (see Note 13)	**₱5,361**	₱7,199

The following tables summarize the components of net pension costs recognized in the consolidated statements of income and the funded status and amounts recognized in the consolidated statements of financial position for the respective plans:

Changes in net defined benefit liability and fair value of pension assets in 2019, 2018 and 2017 are as follows:

	December 31, 2019												
		Net benefit cost in consolidated statements of income				Remeasurements in other comprehensive income							
	January 1, 2019	Current service cost	Net interest	Subtotal	Benefits paid	Return on plan assets (excluding amount included in net interest)	Actuarial changes arising from demographic adjustments	Actuarial changes arising from experience adjustments	Actuarial changes arising from changes in financial assumptions	Effect of asset ceiling	Subtotal	Contributions	December 31, 2019
RTN	₱415,373	₱31,845	₱31,734	₱63,579	(₱58,227)	₱–	₱–	₱26,854	₱54,382	₱–	₱81,236	₱–	₱501,961
TMC	341,831	36,313	25,979	62,292	(23,288)	–	–	(17,089)	12,778	–	(4,311)	–	376,524
HMC	39,563	5,303	3,046	8,349	(4,779)	–	196	257	12,269	–	12,722	–	55,855
CMC	56,522	5,347	4,352	9,699	(5,400)	–	(695)	2,298	13,705	–	15,308	–	76,129
NAC	58,291	6,669	4,489	11,158	(16,754)	–	(983)	1,092	8,075	–	8,184	–	60,879
Defined benefit liability	911,580	85,477	69,600	155,077	(108,448)	–	(1,482)	13,412	101,209	–	113,139	–	1,071,348
RTN	(312,652)	–	(23,431)	(23,431)	58,227	(26,966)	–	–	–	–	(26,966)	(46,304)	(351,126)
TMC	(183,308)	–	(14,377)	(14,377)	23,288	(8,178)	–	–	–	–	(8,178)	(35,000)	(217,575)
HMC	(46,762)	–	(3,916)	(3,916)	3,979	(1,846)	–	–	–	(504)	(2,350)	(12,167)	(61,216)
CMC	(8,997)	–	(758)	(758)	4,815	207	–	–	–	–	207	(6,516)	(11,249)
NAC	(39,155)	–	(3,066)	(3,066)	16,754	1,196	–	–	–	–	1,196	(18,092)	(42,363)
Fair value of plan assets	(590,874)	–	(45,548)	(45,548)	107,063	(35,587)	–	–	–	–	(36,091)	(118,079)	(684,272)
RTN	102,721	31,845	8,303	40,148	–	(26,966)	–	26,854	54,382	–	54,270	(46,304)	150,835
TMC	158,523	36,313	11,602	47,915	–	(8,178)	–	(17,089)	12,778	–	(12,489)	(35,000)	158,949
HMC	(7,199)	5,303	(870)	4,433	(800)	(1,846)	196	257	12,269	(504)	10,372	(12,167)	(5,361)
CMC	47,525	5,347	3,594	8,941	(585)	207	(695)	2,298	13,705	–	15,515	(6,516)	64,880
NAC	19,136	6,669	1,423	8,092	–	1,196	(983)	1,092	8,075	–	9,380	(18,092)	18,516
Pension liability	₱327,905	₱80,174	₱24,922	₱105,096	(₱585)	(₱33,741)	(₱1,678)	₱13,155	₱88,940	₱–	₱66,676	(₱105,912)	₱393,180
Pension asset	(₱7,199)	₱5,303	(₱870)	₱4,433	(₱800)	(₱1,846)	₱196	₱257	₱12,269	(₱504)	₱10,372	(₱12,167)	(₱5,361)

	December 31, 2018												
		Net benefit cost in consolidated statements of income				Remeasurements in other comprehensive income							
	January 1, 2018	Current service cost	Net interest	Subtotal	Benefits paid	Return on plan assets (excluding amount included in net interest)	Actuarial changes arising from demographic adjustments	Actuarial changes arising from experience adjustments	Actuarial changes arising from changes in financial assumptions	Effect of asset ceiling	Subtotal	Contributions	December 31, 2018
RTN	₱473,362	₱36,796	₱27,313	₱64,109	(₱99,758)	₱–	₱–	₱31,392	(₱53,732)	₱–	(₱22,340)	₱–	₱415,373
TMC	344,213	37,611	19,964	57,575	(16,269)	–	–	39,664	(83,352)	–	(43,688)	–	341,831
HMC	42,202	4,835	2,444	7,279	(2,156)	–	–	2,736	(10,498)	–	(7,762)	–	39,563
CMC	57,748	5,290	3,344	8,634	(5,635)	–	501	4,170	(8,896)	–	(4,225)	–	56,522
NAC	60,313	8,308	3,486	11,794	–	–	(219)	(3,218)	(10,379)	–	(13,816)	–	58,291
Defined benefit liability	977,838	92,840	56,551	149,391	(123,818)	–	282	74,744	(166,857)	–	(91,831)	–	911,580
RTN	(416,561)	–	(21,970)	(21,970)	99,758	54,277	–	–	–	–	54,277	(28,156)	(312,652)
TMC	(171,509)	–	(10,491)	(10,491)	16,269	17,423	–	–	–	–	17,423	(35,000)	(183,308)
HMC	(40,840)	–	(2,594)	(2,594)	2,156	3,855	–	–	–	743	4,598	(10,082)	(46,762)
CMC	(7,330)	–	(473)	(473)	5,635	501	–	–	–	–	501	(7,330)	(8,997)
NAC	(20,817)	–	(1,726)	(1,726)	–	1,479	–	–	–	–	1,479	(18,091)	(39,155)
Fair value of plan assets	(657,057)	–	(37,254)	(37,254)	123,818	77,535	–	–	–	–	77,535	(98,659)	(591,617)
RTN	56,801	36,796	5,343	42,139	–	54,277	–	31,392	(53,732)	–	31,937	(28,156)	102,721
TMC	172,704	37,611	9,473	47,084	–	17,423	–	39,664	(83,352)	–	(26,265)	(35,000)	158,523
HMC	1,362	4,835	(150)	4,685	–	3,855	–	2,736	(10,498)	743	(3,164)	(10,082)	(7,199)
CMC	50,418	5,290	2,871	8,161	–	501	501	4,170	(8,896)	–	(3,724)	(7,330)	47,525
NAC	39,496	8,308	1,760	10,068	–	1,479	(219)	(3,218)	(10,379)	–	(12,337)	(18,091)	19,136
Pension liability	₱319,419	₱88,005	₱19,447	₱107,452	₱–	₱73,680	₱282	₱72,008	(₱156,359)	₱–	(₱10,389)	(₱88,577)	₱327,905
Pension liability (asset)	₱1,362	₱4,835	(₱150)	₱4,685	₱–	₱3,855	₱–	₱2,736	(₱10,498)	₱743	(₱3,164)	(₱10,082)	(₱7,199)

	December 31, 2017												
		Net benefit cost in consolidated statements of income				Remeasurements in other comprehensive income							
	January 1, 2017	Current service cost	Net interest	Subtotal	Benefits paid	Return on plan assets (excluding amount included in net interest)	Actuarial changes arising from demographic adjustments	Actuarial changes arising from experience adjustments	Actuarial changes arising from changes in financial assumptions	Effect of asset ceiling	Subtotal	Contributions	December 31, 2017
RTN	₱440,039	₱29,925	₱24,994	₱54,919	(₱33,912)	₱–	₱–	₱16,260	(₱3,944)	₱–	₱12,316	₱–	₱473,362
TMC	308,081	35,506	17,468	52,974	(10,385)	–	–	(798)	(5,659)	–	(6,457)	–	344,213
HMC	31,022	4,978	1,812	6,790	(1,025)	–	–	5,136	279	–	5,415	–	42,202
CMC	50,266	4,989	2,790	7,779	(3,629)	–	–	4,158	(826)	–	3,332	–	57,748
NAC	54,096	7,860	3,169	11,029	–	–	(9,216)	4,117	287	–	(4,812)	–	60,313
Defined benefit liability	883,504	83,258	50,233	133,491	(48,951)	–	(9,216)	28,873	(9,863)	–	9,794	–	977,838
RTN	(375,979)	–	(21,727)	(21,727)	33,912	(5,757)	–	–	–	–	(5,757)	(47,010)	(416,561)
TMC	(144,183)	–	(8,787)	(8,787)	10,385	3,076	–	–	–	–	3,076	(32,000)	(171,509)
HMC	(32,316)	–	(2,112)	(2,112)	1,025	1,269	–	–	–	–	1,269	(8,706)	(40,840)
CMC	–	–	–	–	–	–	–	–	–	–	–	(7,330)	(7,330)
NAC	–	–	–	–	–	(9)	–	–	–	–	(9)	(20,808)	(20,817)
Fair value of plan assets	(552,478)	–	(32,626)	(32,626)	45,322	(1,421)	–	–	–	–	(1,421)	(115,854)	(657,057)
RTN	64,060	29,925	3,267	33,192	–	(5,757)	–	16,260	(3,944)	–	6,559	(47,010)	56,801
TMC	163,898	35,506	8,681	44,187	–	3,076	–	(798)	(5,659)	–	(3,381)	(32,000)	172,704
HMC	(1,294)	4,978	(300)	4,678	–	1,269	–	5,136	279	–	6,684	(8,706)	1,362
CMC	50,266	4,989	2,790	7,779	(3,629)	–	–	4,158	(826)	–	3,332	(7,330)	50,418
NAC	54,096	7,860	3,169	11,029	–	(9)	(9,216)	4,117	287	–	(4,821)	(20,808)	39,496
Pension liability	₱331,026	₱83,258	₱17,607	₱100,865	(₱3,629)	(₱1,421)	(₱9,216)	₱28,873	(₱9,863)	₱–	₱8,373	(₱115,854)	₱320,781

The main categories of plan assets as a percentage of the fair value of total plan assets follow:

2019	**NAC**	**RTN**	**TMC**	**HMC**	**CMC**
Fixed income securities	**40.13%**	**43.77%**	**77.50%**	**73.78%**	**77.87%**
Investments in shares of stock	**37.54%**	**–**	**18.18%**	**22.30%**	**20.28%**
Others	**22.33%**	**56.23%**	**4.32%**	**3.92%**	**1.85%**
	100.00%	**100.00%**	**100.00%**	**100.00%**	**100.00%**

2018	NAC	RTN	TMC	HMC	CMC
Fixed income securities	51.08%	59.71%	94.16%	91.93%	48.01%
Investments in shares of stock	–	–	5.59%	8.07%	–
Others	48.92%	40.29%	0.25%	–	51.99%
	100.00%	100.00%	100.00%	100.00%	100.00%

The overall expected rate of return on assets is determined based on the market expectations prevailing on that date, applicable to the period over which the obligation is to be settled.

The principal assumptions used in determining the pension asset (liability) for the Group's plans are shown below:

2019	**NAC**	**RTN**	**TMC**	**HMC**	**CMC**
Discount rate	**5.54%**	**5.41%**	**5.36%**	**5.52%**	**5.57%**
Expected salary increase rate	**5.00%**	**4.00%**	**8.00%**	**5.00%**	**5.00%**

2018	NAC	RTN	TMC	HMC	CMC
Discount rate	7.70%	7.64%	7.60%	7.70%	7.70%
Expected salary increase rate	5.00%	5.00%	10.00%	5.00%	5.00%

2017	NAC	RTN	TMC	HMC	CMC
Discount rate	5.78%	5.77%	5.80%	5.79%	5.79%
Expected salary increase rate	6.00%	5.00%	10.00%	5.00%	5.00%

Assumptions regarding future mortality rate are based on the 2001 CSO Table - Generational developed by the Society of Actuaries, which provides separate rates for males and females.

The sensitivity analyses below have been determined based on reasonably possible changes of each significant assumption on the net defined pension liability as at the end of the financial reporting period, assuming all other assumptions were held constant:

	Increase (decrease)	**2019**	2018
Discount rates	+100 basis points	**(₱105,387)**	(₱79,886)
	-100 basis points	**125,709**	94,386
Salary increase rate	+100 basis points	**₱123,989**	₱93,825
	-100 basis points	**(106,015)**	(80,895)

As at March 13, 2020 the Group has not yet reasonably determined the amount of 2020 contributions to the retirement fund.

Shown below is the maturity analysis of the undiscounted benefit payments:

	2019	2018
Within the next twelve (12) months	**₱101,586**	₱116,388
Between two (2) and five (5) years	**334,818**	306,727
Between six (6) and ten (10) years	**523,006**	575,517
Total expected payments	**₱959,410**	₱998,632

The weighted average duration of the pension liability as at December 31, 2019 and 2018 is 10.3 years and 8.8 years, respectively.

37. **Income Taxes**

The provision for current income tax shown in the consolidated statements of income includes the Regular Corporate Income Tax (RCIT) of TMC, RTN, CMC, NAC and HMC, Gross Income Tax (GIT) of TMC and RTN and Minimum Corporate Income Tax (MCIT) of EPI and CExCI in 2019, RCIT of TMC, RTN, CMC, NAC and HMC, GIT of TMC and RTN and MCIT of EPI, MEI, BGI and CExCI in 2018, RCIT of TMC, RTN, CMC, NAC and HMC, GIT of TMC and RTN and MCIT of EPI, MEI, BGI, CExCI, DMC and Newminco in 2017, as follows:

	2019	2018	2017
TMC	**₱996,722**	₱1,062,374	₱756,771
RTN	**323,599**	573,853	661,275
CMC	**237,707**	278,203	140,020
NAC	**130,995**	153,190	157,231
HMC	**101,544**	106,190	149,634
EPI	**14**	28	177
MEI	**–**	94	86
BGI	**–**	1	65
CExCI	**–**	1	13
DMC	**–**	–	34
Newminco	**–**	–	12
	₱1,790,581	₱2,173,934	₱1,865,318

All other companies under the Group were in a gross and/or net taxable loss positions in 2019, 2018 and 2017.

The reconciliation between the provision for (benefit from) income tax computed at the statutory income tax rate and the provision for (benefit from) income tax computed at the effective income tax rate as shown in the consolidated statements of income follows:

	2019	2018	2017
Income tax at statutory rate from non-registered activities	**₱2,535,496**	₱2,509,112	₱2,666,111
Add (deduct) tax effects of:			
Dividend income exempt from income tax	**(880,173)**	(649,765)	(1,014,489)
Expired net operating loss carry over (NOLCO) and excess of MCIT over RCIT	**149,862**	54,540	23,021
Change in unrecognized deferred income tax assets	**(106,168)**	224,006	115,206
Interest income subjected to final tax	**(100,304)**	(87,098)	(66,206)
Loss (income) subject to other taxes	**(78,528)**	36,218	(1,973)
Nondeductible expenses	**64,139**	50,722	74,853
Derecognized deferred income tax assets	**46,688**	41,969	–
Effect of change in tax rate	**28,839**	(4,054)	–
Movements in deductible temporary differences for which deferred income taxes were recognized	**(3,256)**	(69,369)	(52,812)
Others	**147**	(1)	(8,490)
	1,656,742	2,106,280	1,735,221
Income tax at statutory rate from Philippine Economic Zone Authority (PEZA) registered activities	**(3,190)**	(1,351)	651
Add (deduct) tax effects of:			
Nondeductible expenses	**7,513**	3,644	1,056
Nontaxable income	**(2,745)**	–	–
Effect of change in tax rate	**(2,665)**	–	–
Interest income subjected to final tax	**(149)**	(98)	(72)
	(1,236)	2,195	1,635
Income tax at effective rates	**₱1,655,506**	₱2,108,475	₱1,736,856

The Tax Reform for Acceleration and Inclusion Act (TRAIN) or RA No. 10963 was signed into law on December 19, 2017 and took effect on January 1, 2018. The TRAIN amended various provisions in the existing 1997 National Internal Revenue Code and increase the capital gains tax on sale of shares of stock not traded in the stock exchange to 15%. Previously, the tax was computed at 5% for the first ₱100,000 of net capital gains plus 10% of the excess.

The components of the Group's net deferred income tax assets and liabilities follow:

	2019	2018
Deferred income tax assets:		
At 30%		
Provision for mine rehabilitation and decommissioning	**₱148,119**	₱82,268
Pension costs	**116,319**	96,257
Cost of share-based payment plan	**69,021**	29,406
NOLCO	**44,845**	37,998
Allowance for impairment losses on:		
Inventories	**34,339**	30,862
Others	**1,097**	1,097
Unrealized foreign exchange losses - net	**23,065**	–
Unamortized past service cost	**20,467**	18,021
Long-term stockpile inventory	**14,715**	14,715
Allowance for ECL on trade and other receivables	**8,603**	14,901
Amortization of ROU asset	**7,656**	–
Accretion of interest on lease liabilities	**2,444**	–
Accrual for quarry materials	**1,876**	–
Excess of MCIT over RCIT	**34**	34
Unrealized valuation losses on financial assets at FVOCI	**–**	7,445
At 5%		
Deferred income	**2,738**	2,947
Accretion of interest on lease liabilities	**2,360**	–
Amortization of ROU asset	**562**	–
Pension costs	**4**	–
	₱498,264	₱335,951
Deferred income tax liabilities:		
At 30%		
Fair value adjustment arising from business combination	**₱251,590**	₱251,590
Asset revaluation surplus	**147,944**	151,098
Unrealized valuation gains on financial assets at:		
FVTPL	**116,561**	53,219
FVOCI	**1,740**	–
Undepleted asset retirement obligation	**88,083**	29,089
Actual lease payment	**8,871**	–
Capitalized borrowing cost	**6,822**	23,267
Unamortized debt issue costs	**2,279**	2,844
Unrealized foreign exchange gains - net	**–**	104,925
At 10%		
Share in cumulative translation adjustment (see Note 10)	**119,199**	137,841
At 5%		
Actual lease payment	**3,035**	–
Capitalized borrowing cost	**2,625**	–
Unrealized foreign exchange gains - net	**17**	228
	₱748,766	₱754,101

The Group did not recognize net deferred income tax asset on the following temporary differences since the management believes that it is not probable that sufficient taxable profit will be available against which the benefits of the net deferred income tax assets can be utilized in the future.

	2019	2018
NOLCO	**₱877,182**	₱1,172,477
Allowance for impairment losses	**658,450**	658,450
Unrealized foreign exchange losses - net	**216,354**	259,970
Allowance for ECL	**15,497**	15,304
Accretion of interest on long-term payable	**4,717**	3,740
Amortization of ROU asset	**2,327**	–
Excess of MCIT over RCIT	**311**	616
Levelized rent expense	**–**	16,661
Others	**–**	802
	₱1,774,838	₱2,128,020

As at December 31, 2019 and 2018, the Group, except for FEI, has NOLCO and excess of MCIT over RCIT that can be claimed as deduction from future taxable income and income tax liabilities, respectively, as follows:

		NOLCO		Excess of MCIT over RCIT	
Year Incurred	Year of Expiration	**2019**	2018	**2019**	2018
2019	2022	**₱367,108**	₱–	**₱15**	₱–
2018	2021	**325,565**	399,360	**29**	123
2017	2020	**333,661**	400,367	**301**	388
2016	2019	**–**	498,931	**–**	139
		₱1,026,334	₱1,298,658	**₱345**	₱650

As at December 31, 2019 and 2018, FEI has NOLCO that can be claimed as deduction from future taxable income as follows:

Year Incurred	Year of Expiration	**2019**	2018
2017	2022	**₱6**	₱6
2016	2021	**134**	134
2015	2020	**191**	191
2014	2019	**–**	146
		₱331	₱477

The movements in NOLCO are as follows:

	2019	2018
Balances at January 1	**₱1,299,135**	₱1,081,500
Expirations	**(499,077)**	(181,725)
Additions	**367,108**	399,360
Derecognition	**(140,501)**	–
Balances at December 31	**₱1,026,665**	₱1,299,135

The movements in excess of MCIT over RCIT are as follows:

	2019	2018
Balances at January 1	**₱650**	₱549
Derecognition	**(181)**	–
Expirations	**(139)**	(22)
Additions	**15**	123
Balances at December 31	**₱345**	₱650

38. **Financial Risk Management Objectives and Policies and Capital Management**

The Group's main financial instruments are cash and cash equivalents, financial assets at FVOCI, at FVTPL and at amortized cost, short-term cash investments and short-term and long-term debts. The main purpose of these financial instruments is to raise funds and maintain continuity of funding and financial flexibility for the Group. The Group has various other financial assets and liabilities such as trade and other receivables, loan receivable, long-term negotiable instruments, trade and other payables, lease liabilities and long-term payable which arise directly from its operations, investing and financing activities.

The main risks arising from the Group's financial instruments are credit risk, liquidity risk and market risk. The BOD reviews and approves policies for managing each of these risks and they are summarized below.

Credit Risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk primarily from its operating (primarily for trade receivables) and investing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

In managing credit risk on investments, capital preservation is paramount. The Group trades only with recognized, reputable and creditworthy third parties and/or transacts only with institutions and/or banks which have demonstrated financial soundness. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. Except for the impaired trade and other receivables, the Group assessed the receivables as collectible and in good standing.

For investments in debt instruments, funds are invested in highly recommended, creditworthy debt instruments that provides satisfactory interest yield and capital appreciation. The investment portfolio is reviewed regularly by the Chief Finance Officer and the Audit and Risk Committee.

Credit Risk Exposure

With respect to credit risk arising from cash and cash equivalents, trade and other receivables, financial assets at FVOCI and at amortized cost, short-term cash investments, loan receivable and long-term negotiable instruments, the Group's exposure to credit risk arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments.

Cash and Cash Equivalents (except Cash on Hand), Financial Assets at FVOCI and at Amortized Cost, Short-term Cash Investments, Loan Receivable and Long-term Negotiable Instruments
In determining the credit risk exposure, the Group has established probability of default rates based on available credit ratings published by Credit Rating Agencies. The credit ratings already consider forward-looking information. When a counterparty does not have published credit ratings, the Group benchmarks the credit ratings of comparable companies, adjusted to account for the difference in size and other relevant metrics.

Trade and Other Receivables
The Group applies the PFRS 9 simplified approach in measuring ECL which uses a twelve (12)-month expected loss allowance for all trade and other receivables. The ECL on trade and other receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The Group has identified the GDP and the inflation rate of the countries in which it sells its goods and services to be the most relevant factors for its trade receivables, and accordingly adjusts the historical loss rates based on expected changes in these factors.

While the above are subject to the impairment requirements of PFRS 9, the identified impairment loss is not significant compared to the gross carrying value of trade and other receivables.

Credit Quality and Aging Analysis of Financial Assets
The financial assets are grouped according to stage whose description is explained as follows:
Stage 1 - those that are considered current and up to thirty (30) days past due, and based on change in rating, delinquencies and payment history, do not demonstrate significant increase in credit risk.
Stage 2 - those that, based on change in rating, delinquencies and payment history, demonstrate significant increase in credit risk, and/or are considered more than thirty (30) days past due but does not demonstrate objective evidence of impairment as of financial reporting date.
Stage 3 - those that are considered in default or demonstrate objective evidence of impairment as of financial reporting date.

The Group's cash and cash equivalents, financial assets at FVOCI and at amortized cost, short-term cash investments, loan receivable and long-term negotiable instruments are classified as Stage 1 and there were no changes in the classification as of the end of the financial reporting period.

The credit quality and aging analysis of the Group's financial assets as at December 31, 2019 and 2018 are summarized in the following tables:

2019	**Neither Past Due Nor Impaired (High)**	**Past Due But Not Impaired**	**Past Due and Individually Impaired**	**Total**
Cash and cash equivalents	**₱11,934,912**	**₱–**	**₱–**	**₱11,934,912**
Cash with banks	723,306	–	–	723,306
Cash under managed funds	114,804	–	–	114,804
Short-term cash investments	11,096,802	–	–	11,096,802
Trade and other receivables	**1,033,265**	**–**	**33,911**	**1,067,176**
Trade	642,527	–	20,345	662,872
Current portion of loan receivable	248,910	–	–	248,910
Interest receivable	54,533	–	–	54,533
Amounts owed by related parties	3,218	–	4,228	7,446
Others	84,077	–	9,338	93,415
Financial assets at:	**3,184,385**	**–**	**–**	**3,184,385**
FVOCI	2,730,168	–	–	2,730,168
Amortized cost	454,217	–	–	454,217
Other noncurrent assets	**614,880**	**–**	**–**	**614,880**
Loan receivable - net of current portion	574,880	–	–	574,880
Long-term negotiable instruments	40,000	–	–	40,000
	₱16,767,442	**₱–**	**₱33,911**	**₱16,801,353**

2018	Neither Past Due Nor Impaired (High)	Past Due But Not Impaired	Past Due and Individually Impaired	Total
Cash and cash equivalents	₱10,769,669	₱–	₱–	₱10,769,669
Cash with banks	820,943	–	–	820,943
Cash under managed funds	106,954	–	–	106,954
Short-term cash investments	9,841,772	–	–	9,841,772
Trade and other receivables	919,359	99,323	57,275	1,075,957
Trade	668,670	89,978	42,703	801,351
Current portion of loan receivable	146,158	–	–	146,158
Interest receivable	53,315	–	–	53,315
Amounts owed by related parties	5,027	–	4,228	9,255
Others	46,189	9,345	10,344	65,878
Financial assets at:	3,140,071	–	–	3,140,071
FVOCI	2,608,301	–	–	2,608,301
Amortized cost	531,770	–	–	531,770
Prepayments and other current assets	709,206	–	–	709,206
Short-term cash investments	679,206	–	–	679,206
Current portion of long-term negotiable instruments	30,000	–	–	30,000
Other noncurrent assets	616,946	–	–	616,946
Loan receivable - net of current portion	576,946	–	–	576,946
Long-term negotiable instrument	40,000	–	–	40,000
	₱16,155,251	₱99,323	₱57,275	₱16,311,849

As at December 31, 2019 and 2018, trade receivables amounting to ₱642.5 million and ₱758.6 million, respectively, remain current while ₱20.3 million and ₱42.7 million, respectively, are over thirty (30) days and are considered impaired.

Credit Quality of Financial Assets
The credit quality of financial assets is managed by the Group using internal credit ratings and is classified into three: High grade, which has no history of default; Standard grade, which pertains to accounts with history of one or two defaults; and Substandard grade, which pertains to accounts with history of at least three (3) payment defaults.

Accordingly, the Group has assessed the credit quality of the following financial assets classified as neither past due nor impaired:

- Cash and cash equivalents and short-term cash investments are placed in various foreign and local banks. Material amounts are held by local banks that have good reputation and with low probability of insolvency. The rest are held by various foreign banks having a S&P credit rating of at least A. Management assesses the quality of these assets as high grade.

- Trade receivables and loan receivable pertain to receivables from customers or related parties which have good financial capacity and with which the Group has already established a long outstanding and good business relationship. Management assesses the quality of these assets as high grade. Trade and other receivables which are not foreseen to be collected are classified as substandard grade.

- Interest receivables derived from short-term cash investments placed in various foreign banks with S&P credit rating of at least A and with local banks with low probability of insolvency, are assessed as high grade. Interest receivable from debt securities and long-term negotiable instruments are also assessed as high grade since these are invested in companies with good reputation and sound financial condition. Interest receivable from loans are also assessed as high grade since these are collectible from third parties which are capable of repaying the amount due.

- Amounts owed by related parties are advances that are due and demandable. The related parties are operating firms and/or capable of repaying the amount due. Management assesses the quality of these assets as high grade.

- Management assesses the quality of other receivables as standard grade since amounts are settled after due date.

- Financial assets at FVOCI and at amortized cost are investments that can be traded and from companies with good financial capacity, making the investment secured and realizable. Management assesses the quality of these assets as high grade.

- Long-term negotiable instruments are investments placed in local banks with good financial capacity and with low probability of insolvency. Management assessed the quality of these assets as high grade.

Liquidity Risk
Liquidity risk arises from the possibility that the Group may encounter difficulties in raising funds to meet commitments from financial instruments.

The Group's objective is to maintain sufficient funding to finance its exploration, mining and power generation activities through internally generated funds, advances from related parties and borrowings from banks. Aside from yielding good returns, the Group ensures that investments have ample liquidity to finance operations and capital requirements. The Group considers its available funds and its liquidity in managing its long-term financial requirements. For its short-term funding, the Group's policy is to ensure that there are sufficient capital inflows to match repayments of short-term debt.

The tables below summarize the maturity profile of the Group's financial liabilities as at December 31, 2019 and 2018 based on contractual undiscounted payments.

2019	**On Demand**	**Less Than Three (3) Months**	**Three (3) To Twelve (12) Months**	**More Than One (1) Year**	**Total**
Trade and other payables					
Trade	**₱293,452**	**₱343,749**	**₱94,043**	**₱–**	**₱731,244**
Amounts owed to related parties	**5,330,216**	–	–	–	**5,330,216**
Dividends payable	–	**574,400**	–	–	**574,400**
Accrued expenses	–	**468,814**	**285**	–	**469,099**
Contract liability	–	**25,949**	–	–	**25,949**
Interest payable	–	**11,365**	–	–	**11,365**
Retention fees payable	**477**	**3,051**	–	–	**3,528**
Others	**19,308**	**2,019**	–	–	**21,327**
Short-term debts					
Carrying amount	–	–	**1,492,404**	–	**1,492,404**
Unamortized debt issue cost	–	–	**7,596**	–	**7,596**
Long-term debts					
Carrying amount	–	–	**88,611**	**930,418**	**1,019,029**
Long-term payable					
Carrying amount	–	–	**5,000**	**12,300**	**17,300**
Unamortized discount	–	–	–	**1,700**	**1,700**
Lease liabilities					
Undiscounted liabilities	–	**12,776**	**39,471**	**3,753,587**	**3,805,834**
	₱5,643,453	**₱1,442,123**	**₱1,727,410**	**₱4,698,005**	**₱13,510,991**

2018	On Demand	Less Than Three (3) Months	Three (3) to Twelve (12) Months	More Than One (1) Year	Total
Trade and other payables					
Trade	₱422,607	₱233,567	₱79,408	₱–	₱735,582
Amounts owed to related parties	5,373,849	–	–	–	5,373,849
Dividends payable	–	663,500	–	–	663,500
Accrued expenses	–	423,313	252	–	423,565
Contract liability	–	8,891	–	–	8,891
Interest payable	–	5,812	9,814	–	15,626
Retention fees payable	3,505	124	–	–	3,629
Others	24,595	–	–	–	24,595
Short-term debts					
Carrying amount	–	–	1,492,268	–	1,492,268
Unamortized debt issue cost	–	–	7,732	–	7,732
Long-term debts					
Carrying amount	–	6,818	112,152	1,288,562	1,407,532
Unamortized debt issue cost	–	–	318	1,429	1,747
Long-term payable					
Carrying amount	–	–	5,000	16,323	21,323
Unamortized discount	–	–	–	2,677	2,677
	₱5,824,556	₱1,342,025	₱1,706,944	₱1,308,991	₱10,182,516

The tables below summarize the maturity profile of the Group's financial assets used to manage the liquidity risk of the Group as at December 31, 2019 and 2018.

2019	**On Demand**	**Less Than Three (3) Months**	**Three (3) to Twelve (12) Months**	**More Than One (1) Year**	**Total**
Cash and cash equivalents					
Cash on hand and with banks	**₱731,522**	**₱–**	**₱–**	**₱–**	**₱731,522**
Cash under managed funds	**114,804**	**–**	**–**	**–**	**114,804**
Short-term cash investments	**11,096,802**	**–**	**–**	**–**	**11,096,802**
Trade and other receivables					
Trade	**518,650**	**123,877**	**–**	**–**	**642,527**
Current portion of loan receivable	**–**	**–**	**248,910**	**–**	**248,910**
Interest receivable	**–**	**53,902**	**631**	**–**	**54,533**
Amounts owed by related parties	**3,218**	**–**	**–**	**–**	**3,218**
Others	**79,594**	**4,483**	**–**	**–**	**84,077**
Financial assets at:					
FVOCI	**2,730,168**	**–**	**–**	**–**	**2,730,168**
FVTPL	**1,651,283**	**–**	**–**	**851,266**	**2,502,549**
Amortized cost	**244,217**	**–**	**–**	**210,000**	**454,217**
Other noncurrent assets					
Loan receivable - net of current portion	**–**	**–**	**–**	**574,880**	**574,880**
Long-term negotiable instruments	**–**	**–**	**–**	**40,000**	**40,000**
	₱17,170,258	**₱182,262**	**₱249,541**	**₱1,676,146**	**₱19,278,207**

2018	On Demand	Less Than Three (3) Months	Three (3) to Twelve (12) Months	More Than One (1) Year	Total
Cash and cash equivalents					
Cash on hand and with banks	₱835,643	₱–	₱–	₱–	₱835,643
Cash under managed funds	106,954	–	–	–	106,954
Short-term cash investments	9,841,772	–	–	–	9,841,772
Trade and other receivables					
Trade	628,193	130,455	–	–	758,648
Current portion of loan receivable	–	–	146,158	–	146,158
Interest receivable	–	48,001	5,314	–	53,315
Amounts owed by related parties	5,027	–	–	–	5,027
Others	46,189	9,345	–	–	55,534
Financial assets at:					
FVOCI	2,608,301	–	–	–	2,608,301
FVTPL	1,420,718	–	–	585,928	2,006,646
Amortized cost	201,770	–	–	330,000	531,770
Prepayments and other current assets					
Short-term cash investments	–	–	679,206	–	679,206
Current portion of long-term negotiable instruments	–	–	30,000	–	30,000
Other noncurrent assets					
Loan receivable - net of current portion	–	–	–	576,946	576,946
Long-term negotiable instrument	–	–	–	40,000	40,000
	₱15,694,567	₱187,801	₱860,678	₱1,532,874	₱18,275,920

Market Risk

Market risk is the risk of loss to future earnings, to fair values or to future cash flows that may result from changes in the price of a financial instrument. The value of a financial instrument may change as a result of changes in foreign currency exchanges rates, commodity prices, interest rates, equity prices and other market changes.

Foreign Currency Risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign currency exchange rates.

Transactions with companies outside the Philippines and with CBNC and THNC for the sale of saprolite and limonite ore are carried out with currencies that management believes to be stable such as the US$.

The Group has transactional currency exposures. Such exposure arises from cash and cash equivalents, trade and other receivables, financial assets at FVTPL and at FVOCI, short-term cash investments under "Prepayments and other current assets", trade and other payables and long-term debts. The Group did not seek to hedge the exposure on the change in foreign exchange rates between the US$ and the Philippine peso. The Group does not generally believe that active currency hedging would provide long-term benefits to stockholders.

To mitigate the effects of foreign currency risk, the Group ensures timely follow-up and accelerates the collection of foreign currency-denominated receivables and the settlement of foreign currency-denominated payables and loans, whenever practicable. Also, foreign exchange movements are monitored on a daily basis.

The Group's foreign currency-denominated financial assets and liabilities and their Philippine peso equivalents as at December 31, 2019 and 2018 are as follows:

	2019		2018	
	US$ Amount	**Peso Equivalent**	US$ Amount	Peso Equivalent
Financial assets:				
Cash and cash equivalents	**$160,950**	**₱8,149,689**	$126,619	₱6,657,471
Trade and other receivables	**14,961**	**757,737**	11,507	605,038
Financial assets at:				
FVTPL	**21,772**	**1,102,409**	17,584	924,550
FVOCI	**15,020**	**760,521**	15,945	838,388
Prepayments and other current assets	**–**	**–**	8,122	427,086
	$212,703	**₱10,770,356**	$179,777	₱9,452,533
Financial liabilities:				
Trade and other payables	**$23,502**	**₱1,190,010**	$23,673	₱1,244,718
Long-term debts	**20,125**	**1,019,029**	21,875	1,150,188
	$43,627	**₱2,209,039**	$45,548	₱2,394,906

The exchange rate used for conversion of US$1.00 to peso equivalent was ₱50.64 and ₱52.58 as at December 31, 2019 and 2018, respectively.

The sensitivity of all the Group's financial instruments to a reasonably possible change in the exchange rate, with all other variables held constant, in the Group's income before income tax (due to changes in fair value of monetary assets and liabilities) as at December 31, 2019 and 2018 follows:

	Peso Weakens (Strengthens)	Sensitivity to pretax income
2019	**₱0.60**	**₱101,446**
	(0.60)	**(101,446)**
2018	₱0.70	₱93,960
	(0.70)	(93,960)

There is no other impact on the Group's equity other than those already affecting the consolidated statements of income.

Interest Rate Risk
The Group's exposure to the risk of changes in market interest rate relates to quoted fixed and floating debt instruments and floating-rate long-term debt.

Floating rate instruments expose the Group to cash flow interest rate risk, whereas, fixed interest rate instruments expose the Group to fair value risk. The Group regularly monitors the market interest rate movements and manages its interest rate risks by using a mix of fixed and variable rates.

The following table set out the carrying amount, by maturity, of the Group's financial instrument that is exposed to cash flow interest rate risk:

Long-term debts	<1 year	1-5 years	>5 years	Total
2019	**₱88,611**	**₱354,445**	**₱575,973**	**₱1,019,029**
2018	₱118,970	₱503,265	₱785,297	₱1,407,532

Management believes that cash generated from operations is sufficient to pay for its obligations under the loan agreements as they fall due.

The sensitivity to a reasonably possible change in the interest rate (in basis points), with all other variables held constant, in the Group's income before income tax and equity as at December 31, 2019 and 2018 are as follows:

		Change in interest rate (in basis points)	Sensitivity to income before income tax	Sensitivity to equity
2019	**Financial assets**	**+100**		**₱38,098**
		-100		**(38,098)**
	Long-term debts	**+100**	**(₱10,190)**	
		-100	**10,190**	
2018	Financial assets	+100		₱36,153
		-100		(36,153)
	Long-term debts	+100	(₱14,075)	
		-100	14,075	

The impact on the Group's income before income tax is caused by changes in the interest of the floating-rate long-term debt, while the impact on the Group's equity is caused by the changes in the market value of quoted debt due to interest rate movements. The impact on the Group's equity excludes the impact on transactions affecting the consolidated statements of income.

Equity Price Risk
Equity price risk is the risk to earnings or capital arising from changes in stock prices relating to its quoted equity securities. The Group's exposure to equity price risk relates primarily to its financial assets on various stocks of listed companies.

The Group's policy is to maintain the risk to an acceptable level. Movement of share price is monitored regularly to determine impact on its financial position.

The table shows the sensitivity to a reasonably possible change in equity prices of quoted equity instruments as at December 31, 2019 and 2018, except equity-linked investments.

	Average change in market indices (in percentage)	Sensitivity to equity
2019	**14.52%**	**₱10,016**
	-14.52%	**(10,016)**
2018	21.24%	₱24,551
	-21.24%	(24,551)

The equity impact is arrived using the reasonably possible change of the relevant market indices and the specific adjusted beta of each stock the Group holds. Adjusted beta is the forecasted measure of the volatility of a security or a portfolio in comparison to the market as a whole.

Capital Management
The Group considers its equity as capital. Its primary objective in capital management is to maintain a strong credit rating in order to support its business and maximize shareholder value.

The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may issue new shares or declare dividend payments to shareholders. No changes were made in the objectives, policies or processes during the years ended December 31, 2019 and 2018.

The Group monitors capital using the debt-to-equity ratio, which is total liabilities divided by equity. The Group's policy is to keep the debt-to-equity ratio to not more than 1:1. Total liabilities include trade and other payables, income tax payable, other current liability, short-term and long-term debts, lease liabilities, long-term payable, deferred income tax liabilities, provision for mine rehabilitation and decommissioning, pension liability and deferred income.

The Group considers the following as capital:

	2019	2018
Capital stock	**₱6,849,836**	₱6,849,836
Additional paid-in capital	**8,262,455**	8,262,455
Share in cumulative translation adjustment	**612,635**	780,412
Cost of share-based payment plan	**370,522**	240,003
Net valuation gains (losses) on financial assets at FVOCI	**32,243**	(92,504)
Asset revaluation surplus	**31,331**	31,714
Retained earnings:		
Unappropriated	**13,713,383**	11,794,529
Appropriated	**1,585,576**	1,818,628
Treasury stock	**(87,950)**	(20,366)
NCI	**3,761,230**	3,786,123
	₱35,131,261	₱33,450,830

The table below shows the Group's debt-to-equity ratio as at December 31, 2019 and 2018.

	2019	2018
Total liabilities (a)	**₱13,130,692**	₱12,581,677
Equity (b)	**35,131,261**	33,450,830
Debt-to-equity ratio (a/b)	**0.37:1**	0.38:1

39. **Financial Instruments**

The following method and assumptions were used to estimate the fair value of each class of financial instruments for which it is practicable to estimate such values:

Cash and Cash Equivalents and Short-term Cash Investments
The carrying amounts of cash and cash equivalents and short-term cash investments approximate their fair value due to the short-term nature and maturity of these financial instruments.

Trade and Other Receivables, Trade and Other Payables and Short-term Debts
Similarly, the carrying amounts of trade and other receivables, trade and other payables and short-term debts approximate their fair values due to the short-term nature of these accounts.

Loan Receivable
The carrying amount of loan receivable, which is the transaction price, approximates its fair value.

Long-term Negotiable Instruments
The carrying amount of long-term negotiable instruments approximate their fair values since interest are earned based on long-term cash investment rates.

Financial Assets at FVOCI and at FVTPL
The fair values were determined by reference to market bid quotes as at the end of the financial reporting period. Upon adoption of PFRS 9, the Group used the net asset approach with consideration of lack of marketability discount and lack of control discount in determining the fair value of unquoted equity securities since the fair value measurement is unobservable (Level 3).

Financial Assets at Amortized Cost
The carrying amount of financial assets at amortized cost, which is measured using the EIR, is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR.

Long-term Debts and Long-term Payable
The fair values of long-term debts and long-term payable are based on the present value of future cash flows discounted using applicable risk free rates for similar types of loans adjusted for credit risk.

<u>Fair Value Hierarchy</u>
The Group uses the following hierarchy in determining and disclosing the fair value by valuation technique:

- Quoted prices in active markets for identical asset or liability (Level 1);
- Those involving inputs other than quoted prices included in Level 1 that are observable for the asset or liability; either directly (as prices) or indirectly (derived from prices; Level 2); and
- Those inputs for assets or liability that are not based on observable market date (unobservable inputs; Level 3).

	2019			2018		
	Level 1	**Level 2**	**Level 3**	Level 1	Level 2	Level 3
Assets measured at fair value:						
Financial assets at:						
FVOCI	**₱2,730,168**	**₱–**	**₱–**	₱2,608,301	₱–	₱–
FVTPL	**1,878,618**	**–**	**623,931**	1,623,792	–	382,854
	₱4,608,786	**₱–**	**₱623,931**	₱4,232,093	₱–	₱382,854

As at December 31, 2019 and 2018, the fair value of the quoted debt and equity securities at the close of the business is the quoted market price (Level 1) and the fair value of unquoted equity securities is determined using the net asset approach since the fair value measurement is unobservable (Level 3).

As at December 31, 2019 and 2018, there were no transfers between Level 1 and Level 2 fair value measurements and no transfers into and out of Level 3 fair value measurements.

40. Significant Agreements and Other Matters

Significant Agreements

a. Loan Agreements

East Coast

In relation to the Supplemental Agreement executed by CMC and East Coast on December 18, 2015, CMC and East Cost executed a Loan Agreement wherein CMC granted East Coast a loan facility amounting to ₱1,000.0 million with an interest rate of 3.00% p.a. The loan was issued in two tranches of ₱150.0 million in October 2015 and ₱850.0 million in December 2015. As payment for the loan, CMC shall deduct 50% of the commission and royalties, net of withholding tax and interest, each time a commission, royalty or additional royalty is paid by CMC to East Coast. The loan is secured by a Pledge Agreement between CMC and East Coast covering the latter's rights, interests, receivables, obligations, and liabilities over the Mineral Production Sharing Agreements (MPSA) on the Cagdianao property owned by East Coast (see Note 40e).

On March 28, 2019, CMC and East Coast amended the Loan Agreement exexcuted in 2015. East Coast obtained an additional ₱280.0 million loan from CMC. The outstanding balance due to CMC under the original and amended Loan Agreements shall be paid by deducting 60% of the commission and royalties, net of withholding tax and interest payments, each time a commission, royalty or additional royalty is paid by CMC to East Coast.

The current portion of loan receivable amounting to ₱248.9 million and ₱146.2 million was included under "Trade and other receivables", while the noncurrent portion amounting to ₱574.9 million and ₱576.9 million was included under "Other noncurrent assets" as at December 31, 2019 and 2018, respectively (see Notes 5 and 13). Interest income from the loan amounted to ₱25.9 million, ₱24.3 million and ₱27.1 million in 2019, 2018 and 2017, respectively (see Note 29).

WAC

On October 11, 2019, WAC executed a promissory note to pay the loan issued by CPDL amounting to US$5.1 million (equivalent to ₱263.8 million). The principal is due for payment on October 22, 2019. In full settlement of the loan, WAC offered to transfer, by way of dation in payment, all of its rights as the registered owner of an aircraft described as Citation XLS+.

b. Throughput Agreements

THNC
On October 4, 2010, TMC and THNC executed a Throughput Agreement wherein TMC will construct the pier facilities within the TSEZ pursuant to its role as Developer. The TSEZ is located within the Surigao Mineral Reservation, an area declared for mineral development pursuant to Proclamation 391, under the supervision of the DENR that issued an "Order to Use Offshore Area" dated September 20, 2010 to TMC for the use of such portion of the Surigao Mineral Reservation for the construction of the pier facilities. In relation to this, THNC entered into a Registration Agreement with the PEZA to construct and operate a mineral processing plant within the TSEZ as an Ecozone Export Enterprise.

Under the agreement, TMC will make available the pier facilities and provide certain services to THNC in consideration for usage fees and service fees to be paid by the latter starting April 2011 until 2031, unless terminated earlier. The usage fee amounted to US$1.3 milion for each semi-annual period to be paid on or before October 10 and April 10.

THNC also agrees to pay service fee that will be agreed upon by both parties which shall be billed on a monthly basis.

Prior to the commencement date, THNC may also request TMC to use any part of the constructed pier facilities, which is ready for use, upon payment of reasonable compensation which shall be mutually agreed by TMC and THNC.

In 2019, 2018 and 2017, service revenues from usage of pier facilities of TMC amounted to ₱143.8 million, ₱154.7 million and ₱135.2 million, respectively (see Note 34).

CBNC
Under the agreement, CBNC shall pay RTN the price which consists of all its direct costs for the pier facilities which includes but not limited to, financial costs, maintenance costs and tax as well as indirect costs directly used for the pier facilities and the services as agreed by the parties. CBNC shall pay to RTN in US$, as a part of such financial costs, the amounts to be paid by RTN to SMM such as interests and loan repayments pursuant to the Omnibus Agreement made and entered into by and between RTN and SMM. The agreement shall continue for twenty-five (25) years after November 25, 2002 unless terminated earlier.

c. Memorandum of Understanding (MOU)
On September 14, 2009, the Parent Company and TMC entered into a MOU with SMM. Pursuant to the terms thereof, the Parent Company and SMM will move ahead on a joint venture basis to build a nickel-cobalt processing plant (the Project) using the HPAL technology to be located within the TMC's mine in Surigao del Norte, while TMC will supply low-grade nickel ore to the plant over the life of the Project. The estimated cost of the Project is US$1,420.0 million, which further increased to US$1,590.0 million, over a three (3)-year construction period, which started in the last quarter of 2010. The plant will have an annual capacity of 51,000 dry metric tons of mixed nickel-cobalt sulfide over an estimated thirty (30) year project life. The MOU provides that the equity share of the Parent Company and SMM shall be 20%-25% and 75%-80%, respectively.

Following the MOU is the THNC's Stockholders Agreement (the Agreement) entered into by the Parent Company, SMM and Mitsui on September 15, 2010 stating that the Project will be undertaken by THNC, a company that will be jointly owned by the Parent Company, SMM and Mitsui with equity interest of 22.5%, 62.5% and 15.0%, respectively.

Pursuant to the sale of 12.5% equity interest of the Parent Company to SMM in October 2016, the shareholding ratio of the Parent Company and SMM is 10% and 75%, respectively, as at December 31, 2019 and 2018 (see Note 10).

The Agreement also sets forth the respective rights and obligations of the Parent Company, SMM and Mitsui, including their responsibilities in respect of financing the US$1,420.0 million, which further increased to US$1,590.0 million, project investment undertaken by THNC.

Also, under the Agreement, the Parent Company, SMM and Mitsui agreed to make loans to THNC or guarantee the repayment of THNC's obligations in accordance with the financial requirements of THNC and in proportion to their shareholding ratio in THNC.

The Agreement shall terminate upon the dissolution of THNC.

d. Sales Agreements

Nickel Ore Sale Agreement with PAMCO and Sojitz (see Note 34a)

Nickel Ore Supply and Service Agreement with CBNC (see Note 34a)

Nickel Ore Supply Agreement with THNC (see Note 34a)

Materials Handling Agreement with THNC (see Note 34a)

Nickel Ore Supply Agreements with Chinese Customers
HMC, CMC, RTN and TMC have ore supply agreements with a number of Chinese customers, each for a fixed tonnage at specific nickel grades and iron content.

The fixed tonnage of ore is generally the volume of expected delivery within a few months. Sale of ore to Chinese customers amounted to ₱10,845.5 million, ₱10,899.8 million and ₱9,391.3 million in 2019, 2018 and 2017, respectively (see Note 32).

Nickel Ore Supply Agreement with Mitsubishi Corporation RTM International Pte., Ltd. and Mitsubishi Corporation RTM Japan Ltd. (Mitsubishi)
RTN, TMC and HMC entered into an agreement with Mitsubishi, a Singapore and Japan-based corporations, covering the sale of its ore products. Under the terms of the agreement, the ore sales are benchmarked to China prices on the basis of a negotiated price per WMT of ore. Mitsubishi shall pay 85% of the provisional invoice amount upon receipt of the required documents and pay the final payment of each shipment after the final dry weight and applicable assay have been determined. Under the agreement, the end user of the material is PAMCO. Sale of ore to Mitsubishi amounted to ₱167.3 million, ₱281.0 million and ₱724.8 million in 2019, 2018 and 2017, respectively (see Note 34).

e. Mining Agreements

i. *MPSA*

RTN
On June 4, 1998, the Government approved the conversion of RTN's Mining Lease Contracts under the old mining regime into an MPSA with the Government pursuant to the Philippine

Mining Act of 1995. The MPSA allows RTN to explore, develop and continue mining operations for nickel ore within the contract area covering 990 hectares in the Municipality of Bataraza, Southern Palawan Island. Under RTN's Environmental Compliance Certificate (ECC), however, 144 hectares of the contract area are excluded from mining operations, being located within an area classified as "core zone" where mining is prohibited under current regulations of the Palawan Council for Sustainable Development (PCSD).

On June 20, 2003, RTN submitted an Application for MPSA covering previously approved Mining Lease Contracts over an area of 4,274 hectares within the Municipalities of Bataraza and Rizal. Most of the contract area is within the core zone and the application is pending.

On April 28, 2005, RTN and the Government entered into a second MPSA covering 85 hectares in the Municipality of Bataraza, which allows RTN to mine limestone in Sitio Gotok. Limestone being mined by RTN pursuant to this second MPSA is being sold to CBNC for the latter's Coral Bay HPAL plant and to a third party.

Under both MPSAs, RTN pays a 2% excise tax on gross revenues as provided in the Philippine National International Revenue Code as the Government's share in its output. Both MPSAs are valid for twenty-five (25) years from issuance and renewable for another term of not more than twenty-five (25) years at the option of RTN, with approval from the Government.

On May 30, 2008, the PCSD issued a resolution interposing no objections to the revision by the Municipality of Bataraza of its Environmentally Critical Areas Network map that, among others, seeks to reclassify the core zone within the contract area into a mineral development area. The reclassification was approved by the Municipal Development Council of the Municipality of Bataraza on November 18, 2009, and subsequently approved by the Provincial Board on January 5, 2010.

On September 1, 2015, the Strategic Environmental Plan clearance was issued by PCSD to RTN which is a requirement in obtaining ECC approval from DENR. The processing of the Application for MPSA by the MGB is consequently under way.

<u>HMC</u>

Taganaan Nickel Project

On July 25, 2008, the Government approved the conversion of HMC's Mining Lease Contract into an MPSA, which allows HMC to explore, develop and continue mining operations for nickel ore within the contract area covering 773.77 hectares in the Municipality of Taganaan, Surigao del Norte. Under the MPSA, HMC pays the Government a 2% excise tax and a 5% royalty on gross revenues, as the contract area is within the Surigao Mineral Reservation. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of HMC, with approval from the Government.

Manicani Nickel Project

On August 13, 1992, HMC and the Government entered into a MPSA, which allows HMC to explore, develop and mine nickel ore within the contract area covering 1,165 hectares in Manicani Island, Municipality of Guiuan, Eastern Samar. Under the MPSA, HMC shall pay the Government a 2% excise tax, 1% royalty and 10% of its net revenues, defined as gross revenues less all cost items that are deductible for income tax purposes. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of HMC, with approval from the Government.

On August 2, 2004, the Regional Panel of Arbitrators of the MGB recommended the cancellation of the MPSA as a result of allegations by third parties against the operations of HMC. On September 4, 2009, the Mines and Adjudication Board of the DENR issued a decision setting aside the decision of the Panel of Arbitrators. Hence, the MPSA remains in effect. HMC is currently not conducting mining operations in Manicani.

On May 23, 2016, HMC applied for the renewal of its MPSA in Manicani which expired on August 13, 2017. As at March 13, 2020, HMC is yet to receive the confirmation from DENR.

<u>TMC</u>

On July 28, 2008, the Government approved the conversion of TMC's Operating Contract into an MPSA, which allows TMC to explore, develop and continue mining operations for nickel ore within the contract area covering 4,584.51 hectares in the Municipality of Claver, Surigao del Norte. On June 18, 2009, the MPSA was amended, increasing the contract area to 4,862.71 hectares. The MPSA is valid until July 28, 2033.

Under the MPSA, TMC pays the Government a 2% excise tax and a 5% royalty, as the contract area is within the Surigao Mineral Reservation. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of TMC, with approval from the Government.

<u>DMC</u>

On July 30, 2007, the Platinum Group Metals Corporation (PGMC) and the Government entered into a MPSA, which allows PGMC to explore, develop and mine nickel ore within the contract area covering 2,392 hectares in the Municipality of Dinapigue, Province of Isabela.

On January 6, 2009, PGMC and DMC executed a Deed of Assignment transferring to DMC all the rights, title and interest in and into the MPSA over the contract area.

Under the MPSA, DMC shall pay the Government a 2% excise tax. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of DMC, with approval from the Government.

ii. Operating Agreements

<u>TMC</u>

La Salle

On December 18, 2006, TMC entered into an Operating Agreement with La Salle, the holder of an Application for MPSA covering 6,824 hectares in the Municipality of Gigaquit, Surigao del Norte. The Operating Agreement allows TMC to explore, develop and mine nickel ore and limestone once the MPSA is approved, and obliges it to assist La Salle in obtaining the MPSA and to comply with the terms thereof once issued.

The Operating Agreement specifies a royalty to La Salle of 5% for nickel ore and ₱10.00 per metric ton for limestone. Upon signing of the Operating Agreement, TMC made an advance royalty payment of ₱1.0 million repayable by deductions from future royalties at a rate of 25% per year over a period of four (4) years. As at December 31, 2019, the MPSA remains pending.

On January 11, 2016, TMC issued a Notice of Exclusion of the limestone deposit from the Operating Agreement to La Salle. TMC has written-off the deferred charges relating to the limestone development and exploration in previous years.

Kepha
On February 14, 2007, TMC entered into an Operating Agreement with Kepha, the holder of MPSA No. 284-2009-XII-SMR covering 6,980.75 hectares in the Municipality of Claver, Surigao del Norte. The Operating Agreement allows TMC to explore, develop and mine nickel ore and limestone and obliges it to comply with the terms of the MPSA.

The Operating Agreement specifies a royalty to Kepha of 5% for nickel ore and ₱10.00 per metric ton for limestone. Upon signing of the Operating Agreement, TMC made an advance royalty payment of US$1.0 million and ₱6.3 million, repayable by deductions from future royalties at a rate of 10% per year over a period of ten (10) years.

On June 19, 2009, the MPSA was issued to Kepha. Under the terms thereof, upon the start of mining operations, TMC shall pay the Government a 2% excise tax and a 5% royalty, as the contract area is within the Surigao Mineral Reservation. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of Kepha, with approval from the Government.

On February 13, 2017, the DENR issued a show cause order directing Kepha to explain why its MPSA should not be cancelled for being allegedly within a watershed, which is protected under the Philippine Mining Act of 1995 and other existing applicable laws, rules and regulations. On February 24, 2017, Kepha replied to the letter stating that based on the MGB Region XIII's downloadable tenement map, the MPSA area is outside of any existing legally proclaimed watershed.

On September 10, 2018, the second renewal of Kepha's two (2) year exploration period was approved by the MGB.

There were no drilling activities related to the Kepha project in 2019 and 2018. Exploration cost pertaining to the project was included under deferred mine exploration costs in "Other noncurrent assets".

Ludgoron
On August 28, 2007, TMC entered into an Operating Agreement with Ludgoron, the holder of a MPSA with Government issued on July 27, 2007 covering a contract area of 3,248 hectares in the Municipality of Carrascal, Surigao del Sur. The Operating Agreement allows TMC to explore, develop and mine nickel ore and obliges it to comply with the terms of the MPSA.

Under the MPSA, upon the start of mining operations, TMC shall pay the Government a 2% excise tax and a 5% royalty, as the contract area is within the Surigao Mineral Reservation. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of Ludgoron, with approval from the Government.

Under the Operating Agreement, TMC shall pay Ludgoron a royalty of 5%. Upon signing of the Operating Agreement, TMC made an advance royalty payment of US$1.0 million, repayable by deductions from future royalties at a rate of 10% per year over a period of ten (10) years. In 2009, an additional advances against royalties amounting to ₱10.0 million was made in order to allow Ludgoron to settle a claims conflict.

On October 10, 2014, TMC rescinded and terminated the Operating Agreement with Ludgoron. Ludgoron is obliged to return to TMC the amount of ₱66.8 million which represent advances to claimowners. Ludgoron already paid TMC an amount of ₱10.0 million and will pay additional

₱23.4 million upon approval of MGB of the transfer of the Operating Agreement to Kafugan Mining Incorporated. The remaining balance will be assumed and settled by Kepha as its own valid and legal obligation in due time.

On January 20, 2016, Ludgoron paid an additional ₱23.4 million in relation to the termination of the Operating Agreement with TMC.

<u>CMC</u>
East Coast
On November 19, 1997, CMC entered into a Memorandum of Agreement (MOA) with East Coast, the holder of a MPSA with the Government issued on the same date covering a contract area of 697.05 hectares in the Municipality of Cagdianao, Dinagat Islands. The MOA allows CMC to explore, develop and mine nickel ore and obliges it to comply with the terms of the MPSA.

The MOA expired on November 19, 2007 and was renewed for a period of ten (10) years. In consideration, East Coast was paid ₱100.0 million upon signing of the extension which was recorded as advances to claimowners, repayable over a ten (10) year period at a rate of ₱10.0 million per year. The MPSA is valid for twenty-five (25) years from issuance and renewable at the option of East Coast, with approval from the Government.

Under the MPSA, CMC pays the Government an excise tax of 2%, and a 5% royalty, as the contract area is within the Surigao Mineral Reservation.

Further, on December 18, 2015, CMC and East Coast executed a Supplemental Agreement to provide for the automatic renewal of the term of the MOA for another twenty-five (25) years, or from 2022 to 2047. The MOA has not been terminated and continues to be in full force and effect subject to the supplemental terms agreed by CMC and East Coast. In consideration of the new term as well as the other conditions contained in the Supplemental Agreement, CMC granted a loan of ₱1,000.0 million to East Coast and paid royalties amounting to ₱150.0 million (see Note 40a). Thereafter, CMC shall pay East Coast commission and royalties as follows:
- Commission equivalent to 3.5% on the gross sales amount of all nickel ore;
- Royalties equivalent to either 7% or 8.75% on the gross sales amount of all nickel ore depending on the monthly average LME nickel settlement price; and
- Additional royalty ranging from ₱10.0 million to ₱50.0 million depending on CMC's audited net income after tax less the additional royalty amount.

The commission expense related to East Coast that is reported under "Marketing" amounted to ₱126.9 million, ₱115.3 million and ₱78.7 million in 2019, 2018 and 2017, respectively.

<u>DMC</u>
DMC and NiHAO Mineral Resources International Inc. (NiHAO) entered into an Operating Agreement on June 13, 2012, under which NiHAO shall have the exclusive right to explore, operate, mine, develop and process minerals found within DMC's mineral property.

Pursuant to the agreement, DMC shall pay NiHAO an amount equivalent to 90% of the invoice value of the nickel ore sold by DMC to third parties in consideration of the services to be performed by NiHAO. This agreement superseded the General Contractor Agreement entered into by NiHAO with DMC on March 5, 2012. The General Contractor Agreement was executed to appoint NiHAO as DMC's general contractor for the Isabela Nickel Project.

In connection to the acquisition of DMC by NAC, NiHAO's operating rights over the Isabela Nickel Project will be converted into preferred shares of DMC, which shares shall be entitled to dividends corresponding to 20% of operating income, net of income tax, subject to Shareholder's Agreement to be executed between NiHAO and DMC. As at December 31, 2019, the Shareholder's Agreement is not yet executed.

f. Loan Guarantee/Substitution Agreement
Under a loan guarantee/substitution agreement dated December 9, 2011 between the Parent Company and SMM, the latter agreed to substitute for the Parent Company to make loans or guarantee the repayment of THNC pursuant to the Stockholders Agreement dated September 15, 2010.

In consideration of the loans and guarantee made by SMM, the Parent Company shall pay to SMM an annual fee equal to 1% of the relevant outstanding amount, which is payable every February 21 and August 21 of each year.

On January 26, 2015, December 18 and December 3, 2013, the Parent Company and SMM entered into another loan guarantee/substitution agreement with respect to the new loan agreement made and entered by THNC and SMM on August 4, 2014, December 3 and January 31, 2013, respectively. The annual fee is also equal to 1% of the relevant outstanding amount, which is payable every March 21 and September 21 of each year.

In case of default, such loan guarantee/substitution agreements will be terminated and the Parent Company shall provide loans to THNC or guarantee the repayment of THNC's loans payable. Failure to provide such loans or guarantee shall be considered a default under the Stockholders' Agreement.

The loan guarantee service fee amounting to ₱64.3 million, ₱65.1 million and ₱66.7 million in 2019, 2018 and 2017, respectively, is recorded under "Finance expenses" in the consolidated statements of income (see Note 30).

g. Power Supply Agreements

SURNECO
On October 31, 2013, the Parent Company and SURNECO signed a fifteen (15) year PSA. Under the terms of the PSA, the Parent Company has agreed to construct, operate, and maintain a 10MW bunker-fired diesel power station under build-operate-transfer scheme and to supply electricity to SURNECO. As defined in the PSA, SURNECO will pay to the Parent Company the monthly fees equal to the capital recovery fee of the power station plus fixed and variable operations and maintenance fee, fuel cost and any other applicable taxes.

The total estimated cost to construct the 10MW bunker-fired diesel power station is about ₱1,000.0 million, which was appropriated from its retained earnings in 2017 (see Note 18).

The power plant underwent endurance test and commissioning from September 26 to October 12, 2016 to determine its readiness to operate and dispatch power to SURNECO through the grid's 69KV power system. Minor modifications were identified and incorporated into the plant design. The impact of the earthquake in February 2017 in Surigao City partially affected the installation at the connection asset, hence, repairs were done. The power plant was finally re-connected to the grid in April 2017 and is awaiting for the COC from the ERC.

However, while the application for COC is on process, ERC issued the PAO for six (6) months from July 10, 2017 to January 9, 2018 and subsequently extended for another three (3) six (6) months from January 10, 2018 to July 9, 2018, July 10, 2018 to January 9, 2019 and January 10, 2019 to July 9, 2019.

Finally, prior to the expiration of the fourth extension of the PAO on July 9, 2019 and after a series of deliberation of the Point to Point Connection Agreement between the Parent Company and SURNECO having no other concerns to ascertain its validity, ERC issued the COC on June 26, 2019.

The Parent Company and SURNECO agreed to commence the commercial operations of the three (3) generating units starting on June 26, 2018 for the first generator set, December 26, 2018 for the second generator set and June 26, 2019 for the third generator set. Each generating unit has a contracted capacity of 3.33MW. The plant operates based on the agreed schedule and in consonance with the load nominations from SURNECO.

Currently, the power plant is ready to dispatch power at 10MW in accordance to the signed and approved PSA.

In 2019, 2018 and 2017, the revenue from sale of power amounted to ₱44.7 million, ₱16.1 million and nil, respectively, while the rent income, which pertains to the capital recovery fee, amounted to ₱111.9 million, ₱22.4 million and nil, respectively.

Palawan Electric Cooperative (PALECO)
<u>Bunker Supply</u>
In July 2015, EPI and PALECO entered into a PSA for the supply of electricity, which will be generated from modular and land-based bunker-fired power stations, collectively the "Bunker Power Stations", with a contracted capacity of 15MW up to 25MW.

Under the PSA, EPI shall design, develop, construct, complete, test and commission, operate and maintain the Bunker Power Stations, as well as all activities related or incidental thereto. Commencing on the completion date and continuing up to the 20th year from effective date, as defined in the PSA, PALECO shall pay EPI an amount equal to the summation of the Bunker Power Costs of the generating units plus reserve power costs, plus any VAT and any other applicable taxes, fees, and charges. PALECO shall also pay EPI a payment security, as defined in the PSA. As at December 31, 2019, construction of the sub-transmission facility has yet to be approved by the ERC.

<u>Solar Supply</u>
In 2015, EPI entered in a PSA with PALECO for the construction and development of a 10MW AC Solar PV Power Station. Under the PSA, EPI shall design, engineer, develop, construct, complete, test, commission, finance, operate and maintain the Solar PV Power Station and all activities related or incidental thereto of PALECO. All costs in connection with the building of the Solar PV Power Station shall be borne by EPI, and EPI shall be responsible for arranging all necessary funding including any available preferential credit. During the commissioning date, PALECO shall put up, a commissioning output at a rate equivalent to the adjusted operation and maintenance component plus any VAT and any other applicable taxes, fees, and charges. Following the commercial operation date and continuing up to the 20th year from effective date, as defined in the PSA, PALECO shall pay EPI monthly fees equal to the capital recovery fee of the Solar PV Power Station plus fixed operations and maintenance fee and any VAT and any other applicable taxes. As at December 31, 2019, construction of the sub-transmission facility has yet to be approved by the ERC.

Oriental Mindoro Electric Cooperative (ORMECO) and OMECO
In February 2014, EPI entered into separate PSAs with ORMECO and OMECO. Under the terms of the PSAs, EPI is committed to sell and deliver approximately 20MW each of geothermal power from the Montelago Geothermal Power Project to ORMECO and OMECO for a period of approximately twenty-five (25) years. The PSAs are renewable upon the agreement of the parties and approval of the ERC.

On November 3, 2014 and December 1, 2014, EPI was granted by the ERC of the Final Authorities on the PSAs with OMECO and ORMECO, respectively. On November 24, 2014, EPI and MGPC entered into a Deed of Assignment for the transfer of EPI's rights and obligations under GRESC No. 2010-02-013 to MGPC or the Montelago Geothermal Energy Project, including the said PSAs.

On December 5, 2014, EPI requested from the DOE the approval of the transfer of GRESC No. 2010-02-013 to MGPC. On February 16, 2016, the DOE approved the said transfer.

In connection with the assignment of the service contract to MGPC, the refundable deposits pertaining to compliance with the PSAs with OMECO and ORMECO were transferred by EPI to MGPC being the Project Entity.

h. Service Contracts

Solar Energy Service Contract No. 2015-01-099
On January 20, 2015, EPI entered into a SESC No. 2015-01-099 with the DOE which grant EPI the right to explore, develop and utilize the solar energy resources within the contract area of 324 hectares in the province of Pili, Camarines Sur.

Under the SESC, EPI assumes all the technical and financial risks without any guarantee from the Philippine Government and shall not be entitled to reimbursement for any expense incurred in connection with the SESC.

The SESC carries a non-extendible two (2) year period of pre-development stage, which involves the preliminary assessment and feasibility study. The SESC shall remain in force for the remainder of twenty-five (25) years from date of effectivity if the solar energy resources are discovered to be in commercial quantities. If EPI has not been in default of any material obligations under the SESC, the DOE may grant EPI an extension of the SESC for another twenty-five (25) years. The full recovery of the project development costs incurred in connection with the SESC is dependent upon the discovery of solar energy resources in commercial quantities from the contract area and the success of future development thereof.

EPI is currently assessing the feasibility of the project and has not yet started the exploration and pre-development activities.

Solar Energy Service Contract No. 2013-10-039
On October 31, 2013, Jobin entered into a SESC with the DOE. The SESC covers an area of approximately 2,997 hectares in the municipalities of Morong and Hermosa, in the province of Bataan. The SESC is for a period of twenty-five (25) years, inclusive of a two (2) year pre-development stage, and renewable for another twenty-five (25) years. The government share under the SESC shall be 1% of the gross income from the sale of electricity generated from the solar energy operations.

On August 28, 2015, Jobin was granted a Certificate of Confirmation of Commerciality by the DOE for its 100.44MW Sta. Rita Solar Power Project located in Mt. Sta Rita, SBFZ. The certificate converts the project's SESC from exploration/pre-development stage to the development/commercial stage.

On March 11, 2016, Jobin's Certificate of Confirmation of Commerciality originally rated for the 100.44MW was amended by DOE to 7.14MW and 92.86MW Sta. Rita Solar Power Project Phase I and II, respectively.

Wind Energy Service Contract (WESC) No. 2013-10-062
On October 31, 2013, Jobin entered into a WESC with the DOE. The WESC covers an area of approximately 2,997 hectares in the municipalities of Morong and Hermosa, in the province of Bataan. The WESC is for a period of twenty-five (25) years, inclusive of a three (3) year pre-development stage, and renewable for another twenty-five (25) years. The government share under the WESC shall be 1% of the gross income from the sale of electricity generated from wind energy operations.

Geothermal Renewable Energy Service Contract No. 2016-02-060
GRESC No. 2010-02-013, which covers an approximate area of 3,914 hectares in the three barangays of Montelago, Montemayor and Melgar-B in Oriental Mindoro, involves the development of geothermal well clusters and a power plant. The steam extracted from the geothermal wells will power a geothermal power station with an output capacity of at least 20MW. Once completed, the addition of geothermal power into the present mix of Mindoro's electricity sources will have a stabilizing effect on the grid where the entire island is located.

The Project is in the exploration stage as at December 31, 2019.

As RE Developer, EPI undertakes to provide financial, technical, or other forms of assistance with the DOE, and agrees to furnish the necessary services, technology, and financing for the geothermal operations. EPI shall assume all financial risks such that if no geothermal resources in commercial quantity is discovered and produced, EPI shall not be entitled to reimbursement for any expenses incurred in connection with the GRESC.

Certificate of Registration No. 2014-02-054 shall remain in force for the remainder of twenty-five (25) years from date of effectivity if geothermal resources in commercial quantity are discovered during the pre-development stage, or any extension thereof. Moreover, if EPI has not been in default in its obligations under the GRESC, the DOE may grant an additional extension of twenty-five (25) years, provided that the total term is not to exceed fifty (50) years from the date of effectivity.

On November 24, 2014, EPI and MGPC entered into a Deed of Assignment for the assignment of EPI's rights and obligations under the GRESC to MGPC. On December 5, 2014, EPI applied with the DOE to transfer the GRESC to MGPC. The DOE approved EPI's application on February 16, 2016 under Certificate of Registration No. 2016-02-060.

The Project is currently at the exploration phase and is expected to have an operating capacity of 40MW. The geothermal plant will supply electricity to Oriental Mindoro and Occidental Mindoro at 20MW capacity each.

Geothermal Renewable Energy Service Contract No. 2010-02-010
By virtue of RA 9513 known as the Renewable Energy Act of 2008, on February 1, 2010, the DOE issued to BGI GRESC No. 2010-02-010, converting its Geothermal Services Contract (GSC-09) issued on July 10, 2008 for the exploration, development and exploitation of geothermal resources covering the geothermal field in Biliran Province (previously a municipality of Leyte). By virtue of such agreement, BGI is entitled to enjoy an income tax holiday for a period of seven (7) years from the start of its commercial operation, duty free importation of machinery for ten (10) years, and 0% VAT, among others.

Geothermal Renewable Energy Service Contract No. 2017-03-056
This GRESC is a spin-off of the above BGI GRESC, issued by the DOE, and delineates the northern area of the island province of Biliran as a separate BGI exclusive development zone with a greenfield status.

i. <u>Sub-transmission Service Agreement (SSA) with PALECO</u>
In 2015, EPI entered into a SSA with PALECO for the installation of 69kV sub-transmission facilities and associated components (substations), and the connection of said facilities to PALECO's distribution system for the delivery of reliable power supply to the municipalities of El Nido, Taytay, San Vicente and Roxas (the "Municipalities") in the province of Palawan. Under the SSA, EPI shall develop, design, construct, install, test and commission, and finance the sub-transmission lines and substations in the Municipalities. Commencing on the completion date and continuing up to the 20th year from effective date, as defined in the SSA, PALECO shall pay monthly fees as defined in the SSA, plus any VAT and any other applicable taxes, fees and charges. PALECO shall also pay EPI a payment security equivalent to one month fee, which shall be in the form of a thirty (30)-day revolving letter of credit from a financial institution and with a maturity of three hundred sixty five (365) days. As at December 31, 2019, ERC's approval of the sub-transmission facility has not yet been acquired.

j. <u>Investment Agreement</u>
On August 24, 2015, an Investment Agreement was executed by and among BGI, OGI, BGHI, EPI, and BHI. The said agreement sets out the principal terms and fundamental transactions pursuant to which BHI shall invest in BGI and the Biliran Geothermal Project, the respective rights and obligations of parties to the project, and the strategic arrangements for the management and operation of BGI and the project. The Investment Agreement provides that:

- BGI shall increase its authorized capital stock by 1,845,000 common shares, with par value of ₱1 per share within sixty (60) days from the signing of the agreement.
- BHI shall subscribe to the said increase in the authorized capital stock of BGI.
- BGI shall undertake to procure that all its stockholders of record at the time of the subscription shall waive any pre-emptive right, right of first refusal or preferential light of subscription to the first subscription shares in favor of BHI.
- BGHI shall then purchase from Filtech Energy Drilling Corp. (FedCo) its shares in BGI.
- BGI shall apply for quasi-reorganization in respect of its authorized capital stock prior to the subscription of BHI in order to apply all of its additional paid-in capital to its deficit and to increase its authorized capital stock, and convert all the issued and outstanding existing preferred shares of BGI into common shares.
- BHI shall further subscribe to 88,155,000 common shares of BGI as part of the second subscription. Thereupon, BGI shall convert ₱58.8 million BGHI receivables into common shares in favor of BGHI.
- BGHI shall sell and BHI shall purchase 60% of BGHI's receivables from BGI and the parties shall cause the conversion of the said receivables into redeemable preferred non-voting shares.

- BHI shall pledge all of the redeemable preferred non-voting shares it received from BGI to BGHI as security for the payment of the amount equal to the face value of the BGHI's receivables and new BGHI receivables purchased by BHI.

The Investment Agreement also states that BGHI and BHI shall each maintain their respective shareholding percentage in BGI's equity capital at 40% and 60%, respectively, unless otherwise agreed in writing. Either BGHI or BHI may freely transfer its shares, except that no transfer shall be made by a party to any person if such transfer would reduce the stock ownership of Filipino citizens in BGI to less than the required percentage of the capital stock as provided by existing applicable law.

As at December 31, 2019, BGI has implemented the following:
- BGI increased its authorized capital stock by 1,845,000 common shares with par value of ₱1 per share;
- BHI subscribed to 1,845,000 shares of BGI at par value;
- BGHI purchased FEDCO's shares in BGI;
- Amendment of the Articles of Incorporation of BGI to reclassify 492,000 preferred shares with par value of ₱1 into common shares with par value of ₱1 per share;
- Amendments of BGI's by-laws to incorporate all the provisions of the October 22, 2015 Shareholder's Agreement; and
- BHI and BGHI's 60% and 40% ownership of the outstanding capital stocks of BGI, in accordance with the Investment Agreement.

k. Participation and Shareholder's Agreement

In May 2011, the Parent Company and SMM signed a Participation and Shareholder's Agreement containing terms of SMM's expected equity participation in CExCI. Under the terms of the Agreement, SMM will invest US$1.5 million in CExCI for 25% equity. Once such funds have been exhausted, SMM has the option to invest US$2.8 million for an additional 15% equity which would bring its total equity in CExCI to 40%. SMM did not exercise its option to make the additional investment and the said agreement was terminated.

CExCI has identified a new property for exploration and development in the province of Zambales under Newminco, which is prospective for gold and copper. In relation to this, SMM put up an additional US$2.8 million to increase its ownership from 25% to 40%. On November 24, 2015, the shareholders of CExCI agreed to enter into a new Participation and Shareholder's Agreement to set out the rights and obligations of the shareholders in relation to the conduct of the business of CExCI. The new agreement also causes CExCI to convert the existing advances from shareholders amounting to ₱37.2 million into equity, based on the initial equity proportion of shareholders, by issuing shares out of the unissued authorized capital stock of CExCI at a premium. CExCI has filed the application for the conversion of advances into equity with the SEC. As at December 31, 2019, CExCI is still waiting for the SEC's approval of the conversion of advances into equity.

On December 18, 2015, the BOD of CExCI approved the increase in authorized capital stock of the latter. Upon approval of the SEC of the application for increase in authorized capital stock of CExCI, the additional investment of SMM amounting to US$2.8 million, which is equivalent to ₱131.9 million, will be converted into equity. After the conversion, the Parent Company and SMM's equity in CExCI shall be 57% and 40%, respectively. In 2017 and 2018, SMM made an additional investment to CExCI amounting to ₱28.0 million and ₱24.0 million, respectively, following the equity cash call made by the latter.

l. Marketing Agreement with Mitsubishi
RTN, TMC and HMC entered into a Marketing Agreement with Mitsubishi, wherein the latter will provide the services set forth below:

a) To use its reasonable endeavors in collecting, studying and analyzing the market information related to nickel ore, iron ore, nickel pig iron, and stainless steel;
b) To periodically report market information defined in the marketing agreement;
c) To make efforts to introduce customers to RTN, TMC and HMC and provide support to the Group in negotiating the price and terms and conditions of sales contracts of the products by and between the Group and customers; and
d) To monitor and assess trends of customers and support RTN, TMC and HMC to create an effective pricing strategy and marketing plan.

Marketing fees of 3.5% shall be charged to RTN, TMC and HMC based on the total amount of revenue on FOB price stated in the invoices issued by RTN, TMC and HMC to each customer.

Marketing fees charged by Mitsubishi amounted to ₱30.2 million, ₱24.9 million and ₱17.8 million in 2019, 2018 and 2017, respectively.

m. Lease Agreements

Lease Agreement with THNC
On October 31, 2013, TMC and THNC executed a lease agreement wherein TMC will lease the land within the TSEZ to the lessee. The TSEZ leased area of approximately 675 hectares is located at Barangays Taganito and Hayanggabon, Claver, Surigao del Norte. The duration of the lease agreement shall be for a period of twenty (20) years starting January 1, 2013, however, rental rate shall be annually agreed by both parties. TMC's rental income from the said lease amounted to ₱6.9 million in 2019 and ₱6.7 million in 2018 and 2017 (see Notes 31 and 34).

In the above lease agreement, it was agreed by TMC and THNC that the option fee of ₱83.8 million received in 2010 shall be treated as advance rental and deducted from the annual rental fee. The same shall be equally applied to each year of the lease term or ₱4.2 million each year of the twenty (20) year lease term.

As at December 31, 2019 and 2018, the carrying value of deferred income - net of current portion amounted to ₱50.3 million and ₱54.5 million, respectively.

Lease Contract with the DENR
TMC is a party to a lease contract dated April 10, 2003 with the DENR over a tract of foreshore land located at the Taganito mine comprising an area of approximately 12,000 sq. m. The foreshore lease has a term of twenty-five (25) years from the date of issue, unless terminated earlier. The DENR may renew the foreshore lease for another twenty-five (25) years, at its option. In accordance with the foreshore lease, TMC constructed permanent improvements appropriate for the wharf to facilitate the barging of mine ore to customers' vessels. Under the terms of the lease, if TMC uses or attempts to use the premises for other purposes, all rights and interests, including the improvements, will be forfeited in favor of the Government. Upon the termination of the lease or any extension, all improvements made by TMC will become the property of the Government.

n. PEZA and Board of Investments (BOI) Registration

Registration with PEZA - TMC
On December 21, 2009, Presidential Proclamation No. 1966 was issued creating and establishing the 680 hectare area situated in Taganito, Municipality of Claver, Province of Surigao Del Norte to be known as TSEZ. TMC is a PEZA-registered operator/developer of the economic zone as per Certificate of Registration No. EZ 10-01. The certificate of registration was signed on January 7, 2010.

Pursuant to TMC's registration with PEZA as an economic zone developer/operator, TMC is entitled to certain incentives in accordance with the provisions of RA No. 7916, otherwise known as "the Special Economic Zone Act of 1995", as amended.

Under PEZA Board Resolution No. 11-08 dated March 1, 2011, its directors approved TMC's application for extension of its existing TSEZ. On July 28, 2011, pursuant to the resolution, the Government issued Proclamation No. 211 designating parcels of land with an aggregate area of 7.5 hectares located at Barangay Taganito, municipality of Claver, Province of Surigao del Norte, for inclusion to the existing TSEZ.

On January 23, 2013, PEZA issued a Letter of Authority No. 13-0426 allowing TMC to allocate 1 hectare lot within the TSEZ located at Barangay Taganito, Claver, Surigao del Norte as relocation site for the residents along Hayanggabon River, Barangay Hayanggabon, Claver, Surigao del Norte.

On December 27, 2016, PEZA issued a certification entitling TMC qualification for the purpose of VAT zero-rating of its transactions with local suppliers of goods, properties and services and exemption from all national and local taxes and licenses except real property taxes on land owned by TMC and those required to be paid under the MPSA dated July 28, 2008. In lieu thereof, TMC shall pay 5% final tax on gross income. The certification is valid from January 1 to December 31, 2019 and renewable annually, unless otherwise revoked or suspended by PEZA prior to expiration of said period.

On January 15, 2020, TMC renewed its certification from PEZA as well as its VAT zero rating entitlement which is valid from January 1 to December 31, 2020.

Registration with PEZA - RTN
On December 27, 2002, RTN registered with the PEZA as the developer/operator of Rio Tuba Processing Zone, located in Barangay Rio Tuba, Municipality of Bataraza, Palawan. The PEZA-registered activities are entitled to certain tax and nontax incentives. Starting 2003, such activities are already subject to 5% tax based on GIT in lieu of national and local taxes and licenses except those required to be paid under the MPSA dated June 4, 1998 executed by and between the DENR and RTN. RTN's certification from PEZA is valid from January 1 to December 31, 2019 and renewable annually, unless otherwise revoked or suspended by PEZA prior to expiration of said period. On January 8, 2020, RTN received the renewal of its certification from PEZA which is valid for the year 2020.

Registration with SBMA - Jobin
On January 20, 2011, Jobin was registered with the SBMA as a Subic Bay Freeport Enterprise, primarily to promote and undertake research, development, utilization, manufacture, sale, marketing, distribution and commercial application of new, renewable, non-conventional and environment-friendly energy sources and system at Mt. Sta. Rita, SBFZ. The SBMA-registered

activities are entitled to certain tax and non-tax incentives. In lieu of paying the regular taxes, Jobin pays 5% final tax on gross income earned, subject to the condition that Jobin's income from sources within the Custom Territory should not exceed 30% of its total income from all sources. Otherwise, Jobin shall be subject to the income tax laws of the Custom Territory.

BOI Certifications
TMC, RTN, HMC and CMC received BOI certifications pursuant to Revenue Memorandum Order No. 9-2000 entitled "Tax Treatment of Sales of Goods, Properties and Services made by VAT-registered Suppliers to BOI registered Manufacturers-Exporters with 100% Export Sales". The certifications are valid from January 1 to December 31, 2019 and renewable annually, unless sooner revoked by the BOI Governing Board.

As at March 13, 2020, TMC, RTN, HMC and CMC received the renewal of their BOI certification which is valid from January 1 to December 31, 2020.

On April 29, 2014, BGI was registered with the BOI in accordance with the provision of the Omnibus Investment Code of 1987, as amended as a new RE developer of geothermal energy resources.

On August 27, 2014, MGPC was registered with the BOI as a RE developer of geothermal energy resources. The BOI has issued the certificate of registration of MGPC on October 7, 2016.

o. Share Purchase Agreements

SMM
On September 15, 2016, the Parent Company and SMM executed a SPA wherein the latter agreed to purchase the Parent Company's 511,875,000 shares in THNC, representing 12.5% of the outstanding capital stock of THNC, at a purchase price of US$42.0 million, which is equivalent to ₱2,037.2 million (see Note 10). The sale and purchase of the shares was consummated upon the written consent of Japan Bank for International Cooperation.

The SPA also provides that for a period of eighteen (18) years but no earlier than three (3) years from the execution of the SPA, the Parent Company shall have the right to repurchase from SMM such number of shares of THNC equivalent to 12.5% equity ownership therein at the time when the right is exercised. The repurchase right can only be exercised once. The Parent Company received the full payment of the purchase price on October 17, 2016.

MOA with SMM
Pursuant to the SPA with SMM, the Parent Company and SMM also agreed on September 15, 2016 that effective July 1, 2016, their responsibility to provide loans and guarantee obligations of THNC shall be 10% and 75%, respectively.

TBEA International Engineering Co., Ltd. (TBEA)
On November 12, 2019, EPI, TBEA and Jobin entered into a Share Sale and Purchase Agreement, which sets out the terms and conditions in respect of the purchase by TBEA from EPI of up to 20% of the total issued shares of Jobin.

The first sale transaction involves 170,364,774 shares or 10% of the total issued shares. The second sale transaction involves another 170,364,774 shares or another 10% of the total issued shares.

As at March 13, 2020, both the first and second sale transactions have not yet been executed.

p. Retail Supply Contracts

Manta
On November 11, 2016, MEI entered into a contract with Manta for the supply of electricity to meet Manta's full power requirements for the NAC Tower. The contract is for a period of two (2) years commencing on December 26, 2016, and may be extended upon mutual consent of both parties. In each billing month throughout the term of the contract, Manta shall take and pay MEI's minimum energy quantity of 255,000 kilowatt-hour (kWh). Manta shall also pay a security deposit amounting to ₱2.9 million, which shall stand as security for the faithful and proper compliance by Manta of its obligations under the contract. MEI recognized revenue amounting to ₱19.1 million, ₱27.8 million and ₱28.2 million from this contract in 2019, 2018 and 2017, respectively (see Note 34).

q. Aircraft Purchase Agreement and Related Contracts

Option Agreement
On April 24, 2013, RTN secured an option to purchase an aircraft, described as Citation XLS+, with WAC. The Option Agreement granted RTN the absolute and exclusive right to purchase the said aircraft which is exercisable anytime within the twelve (12) year term. In consideration, RTN paid an option fee of US$2.3 million (equivalent to ₱97.8 million) which shall be fully deducted from the purchase price of the aircraft once the option is exercised.

Assignment of the Option Agreement
On August 19, 2019, RTN assigned to CPDL its absolute and exclusive right to purchase the Citation XLS+ from WAC. In consideration of the assignment, CPDL paid an option fee of US$0.9 million (equivalent to ₱48.0 million) to RTN.

The remaining balance of the deposit for aircraft acquisition of RTN amounting to ₱51.1 million was written-off in 2019 (see Note 31). Consequently, CPDL also written-off the option fee paid to RTN (see Note 31).

Aircraft Purchase Agreement (APA) and Trade-In Agreement
On August 19, 2019, CPDL entered into an APA with Textron Aviation Inc. (Textron) to purchase Citation CJ4 with serial number 525C-0256 for a total consideration of US$9.3 million (equivalent to ₱471.2 million). In relation to this, CPDL and Textron also entered into a Trade-In Agreement, which is part of the APA, wherein they agreed to trade-in the used aircraft, particularly described as Citation XLS+ with serial number 560-6147, for Citation CJ4 for a corresponding trade-in value of US$6.0 million (equivalent to ₱303.8 million). The difference in the purchase price of Citation CJ4 and Citation XLS+ was paid in cash by CPDL. The Citation CJ4 was delivered in December 2019.

On December 10, 2019, CPDL and Textron agreed to amend the Trade-In Agreement based on the findings of the trade-in inspections as follows:

a) US$5.9 million will be paid by Textron to CPDL when the trade-in aircraft is delivered to Textron
b) US$0.1 million will be held by Textron for up to six (6) months after the delivery date of the trade-in aircraft to Textron to be applied toward the repair or replacement of the already identified airworthiness discrepancies as well as any airworthiness discrepancies that are discovered during the replacement of the RH engine combustion liner.

c) If the cost of the repair or replacement of the already identified airworthiness discrepancies as well as any airworthiness discrepancies that are discovered during the replacement of the RH engine combustion liner is less than US$0.1 million, Textron will pay to CPDL the difference between the cost of repairs or replacement of the airworthiness discrepancies.

The trade-in of aircrafts resulted to a gain of ₱40.0 million in 2019 (see Note 31).

r. Other Agreements

Joint Undertaking with National Commission for Indigenous Peoples (NCIP)
On December 8, 2009, TMC and NCIP entered into a Joint Undertaking, which confirmed that 1% royalty on annual gross revenues of TMC is payable to the Mamanwa Tribe pursuant to a MOA dated July 18, 2006 between TMC, the NCIP and the Tribe and a Certificate of Ancestral Domain Title issued to the Tribe, within which area TMC's mining operation is located.

Agreement with Local Government Units
RTN together with RTN Foundation, Inc. and CBNC entered into Agreements with the barangay councils and community residents covered in the SDMP as required by law and as one of the conditions of ECC. The Agreement stipulated that RTN and CBNC should meet the changing needs and demands of the communities and shall submit the SDMP every five (5) years to the MGB Region IV for approval. In addition, as part of the process of securing the consent of affected communities, the program must be prepared in consultation and in partnership with the project proponent and neighboring communities. On January 7, 2014, SDMP No. MGB-IVB-2013-003 III was approved by the MGB covering the period of five (5) years from 2014 to 2018.

RTN incurred royalty payments to indigenous people amounting to ₱32.6 million in 2019, ₱44.0 million in 2018 and ₱45.9 million in 2017, in accordance with the SDMP.

Suretyship Agreement with SBC
On August 4, 2015, the Parent Company entered into a Suretyship Agreement with SBC to guarantee and warrant the prompt and full payment and performance of the guaranteed obligations, including increases, renewals, roll-overs, extensions, restructuring, conversions, amendments or novations, of EPI to SBC amounting to ₱3,000.0 million. The agreement shall remain in full force and effect until full payment of the guaranteed obligations is made.

In September 2017, EPI partially repaid its loan to SBC reducing the principal from ₱3,000.0 million to ₱1,500.0 million. At maturity, the remaining balance of the loan of ₱1,500.0 million was renewed by EPI for another year (see Note 15).

MOA with DOE
On December 3, 2014, the Parent Company and DOE agreed in accordance with RA No. 9136 or the EPIRA of 2001 which requires all energy generation companies and/or energy resource developers to provide financial benefits equivalent to ₱0.01/ kWh of the total electricity sales of the generation facility to its customer/off-taker to the region, province, city or municipality and barangay that host the generation facility, and to establish the corresponding trust accounts which should be administered by the DOE. The ₱0.01 financial benefits shall be allocated as follows: ₱0.005/kWh for Electrification Fund, ₱0.0025/kWh for Development and Livelihood Fund and ₱0.0025/kWh for Reforestation, Watershed Management, Health and/or Environment Enhancement Fund.

Other Matters

- With the implementation of the TRAIN Act effective January 1, 2018, the excise tax rate on all metallic minerals increased from 2% to 4% of the market value of the gross output thereof at the time of the removal.

- Updates in the Philippine Mining Industry
  In line with the issuance of DENR Memorandum Order No. 2016-01 mandating a comprehensive review of all operating mines and mines under suspended and/or care and maintenance status, and a moratorium on the acceptance, processing and/or approval of mining applications and/or new mining projects for all metallic and non-metallic minerals, an industry-wide audit was carried on since July 2016.

  On February 2, 2017, the Secretary of the DENR ordered the closure and suspension of several mines in the country for alleged environmental violations noted during the industry-wide audit.

  In light of concerns expressed by various industry stakeholders, the Mineral Industry Coordinating Council (MICC) issued a resolution on February 9, 2017, which called for the review of the audit conducted on mining companies, and the closure and suspension orders by the DENR Secretary. This mandate of the MICC covers all mining contracts in the Philippines, although the review will start with mining companies affected by the closure order. The multi-stakeholder review shall be based on the guidelines and parameters set forth in mining contracts and in other pertinent laws, and will advise the DENR on the performance of existing mining operations in consultation with local government units. Five technical review teams (TRT) will conduct the review over a three (3) month period starting in March 2017. The TRTs will check the compliance of affected mining companies with applicable agreements, and laws and regulations taking into account the technical, legal, social, environmental and economic aspects of their mining operations. The results of the review will be submitted to the multi-stakeholder Technical Working Group (TWG) of the MICC. The TWG will verify the results before the final presentation to the MICC. The MICC will then present the findings and submit its recommendations to the Office of the President, which shall make the final decision on the DENR's closure and suspension orders. As at March 13, 2020, the MICC review is still ongoing.

  On February 14, 2017, the Secretary of the DENR announced the cancellation of a total of seventy five (75) MPSAs considered to be situated in watersheds. Show cause orders were issued to the concerned mining companies, which were given seven (7) days to respond.

  On February 13, 2017, HMC received a letter from DENR stating that MPSA in Taganaan Island, Surigao is being cancelled due to alleged violations of RA No. 7942 or the "Philippine Mining Act of 1995" as a result of the audit conducted in July 2016. On February 17, 2017, HMC filed a Notice of Appeal with the Office of the President. It is the Parent Company's position that there are no legal and technical grounds to support the cancellation of HMC's MPSA.

  The Parent Company will pursue all legal remedies to overturn the said order because of due process violations and the absence of any basis that would warrant a suspension of HMC's operations, much less the cancellation of its MPSA.

  RTN, TMC and CMC were not included in the list of mining operations recommended for suspension or closure by the DENR.

41. Events after the End of the Financial Reporting Period

Dividend Declaration
On March 13, 2020, the Parent Company's BOD declared cash dividends amounting to ₱0.08 per share to stockholders of record as at March 27, 2020 which will be paid on April 8, 2020.

Amendments to the 2018 ESOP
On the same date, the Parent Company's BOD also approved the following amendments to the 2018 ESOP:
a) increase in number of shares reserved for the exercise of options to 375,000,000 shares; and
b) inclusion of the Parent Company's subsidiary, CExCI among the subsidiaries covered by the 2018 ESOP.

Corona Virus Disease (COVID)-19 Outbreak
In a move to contain the COVID-19 outbreak, on March 13, 2020, the Office of the President of the Philippines issued a Memorandum directive to impose stringent social distancing measures in the National Capital Region effective March 15, 2020. This measure is expected to result to disruptions to businesses and economic activities. And though the government imposed an Enhance Community Quarantine in Luzon, the Group's mine in Palawan, as well as its mines in Surigao, continue to operate but under strict quarantine protocols to avoid possible infection and spread of the virus.

The Group considers the measure taken by the government as a non-adjusting subsequent event, which does not impact its financial position and performance as at and for the year ended December 31, 2019. However, it could have an impact in our 2020 financial results and even periods thereafter. Considering the evolving nature of this outbreak, the Group cannot determine at this time the impact to the financial position, performance and cash flows. The Group will continue to monitor the situation.

42. Supplemental Disclosure to Consolidated Statements of Cash Flows

	2019	2018
Noncash investing activities		
Recognition of ROU asset - land, building and leasehold improvements (see Note 9)	**₱637,005**	₱–
Exchange of assets (see Note 40q)	**303,810**	–
Dation of aircraft against loan receivable (see Note 40a)	**263,824**	–
Adjustment for capitalized cost of mine rehabilitation and decommissioning (see Notes 9 and 16)	**204,766**	128,306
Application of commission and royalties payable, net of withholding taxes and interest, against loan receivable from East Coast (see Notes 5 and 13)	**179,314**	136,856
Noncash financing activity		
Issuance of 80% stock dividends	–	3,041,171

Changes in Liabilities Arising from Financing Activities

	2019					
	January 1	**Cash flows**	**Foreign exchange movement**	**Reclassification**	**Others**	**December 31**
Current						
Dividends payable, gross of final withholding tax (see Note 14)	**₱742,033**	**(₱2,212,752)**	**₱–**	**₱–**	**₱2,111,941**	**₱641,222**
Interest payable (see Note 14)	**15,626**	**(167,256)**	**(7,388)**	**–**	**170,383**	**11,365**
Short-term debts (see Note 15)	**1,492,268**	**(11,097)**	**–**	**–**	**11,233**	**1,492,404**
Current portion of:						
Long-term debts (see Note 15)	**118,970**	**(102,819)**	**(4,836)**	**77,296**	**–**	**88,611**
Lease liabilities (see Note 35)	**–**	**(90,273)**	**–**	**60,072**	**55,342**	**25,141**
Long-term payable (see Note 17)	**5,000**	**(5,000)**	**–**	**5,000**	**–**	**5,000**
Noncurrent						
Long-term debts (see Note 15)	**1,288,562**	**(231,818)**	**(50,776)**	**(77,296)**	**1,746**	**930,418**
Lease liabilities (see Note 35)	**–**	**–**	**–**	**(60,072)**	**641,609**	**581,537**
Deferred income	**54,469**	**(4,190)**	**–**	**–**	**–**	**50,279**
Long-term payable (see Note 17)	**16,323**	**–**	**–**	**(5,000)**	**977**	**12,300**
Total liabilities used in financing activities	**₱3,733,251**	**(₱2,825,205)**	**(₱63,000)**	**₱–**	**₱2,993,231**	**₱3,838,277**

	2018					
	January 1	Cash flows	Foreign exchange movement	Reclassification	Others	December 31
Current						
Dividends payable, gross of final withholding tax (see Note 14)	₱712,501	(₱4,418,734)	₱–	₱–	₱4,448,266	₱742,033
Interest payable (see Note 14)	11,533	(126,195)	(10,303)	–	140,591	15,626
Short-term debts (see Note 15)	–	1,488,922	–	–	3,346	1,492,268
Other current liability	197,079	24,000	–	–	–	221,079
Current portion of:						
Long-term debts (see Note 15)	1,635,178	(1,597,914)	3,691	76,174	1,841	118,970
Long-term payable (see Note 17)	5,000	(5,000)	–	5,000	–	5,000
Noncurrent						
Long-term debts (see Note 15)	1,349,211	(27,273)	42,446	(76,174)	352	1,288,562
Deferred income	58,659	(4,190)	–	–	–	54,469
Long-term payable (see Note 17)	20,168	–	–	(5,000)	1,155	16,323
Total liabilities used in financing activities	₱3,989,329	(₱4,666,384)	₱35,834	₱–	₱4,595,551	₱3,954,330

Others include the effect of accrual of dividends, including those that were not yet paid at year-end, effect of interest accrued but not yet paid on interest-bearing loans, accretion of interest on long-term payable and lease liabilities and amortization of debt issue cost.

43. **Business Segment Information**

The Group's operating businesses are organized and managed separately according to the nature of the products and services provided, with each segment representing a strategic business unit that offers different products and serves different markets.

The mining segment is engaged in the mining and exploration of nickel saprolite and limonite ore, limestone and quarry materials.

The services segment is engaged in the chartering out of LCT, construction and rendering of services to CBNC, THNC and other parties.

The power segment is engaged in power generation and exploration for geothermal resources.

Management monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment. The Group is also using core net income (loss) in evaluating total performance. Core income is the performance of business segments based on a measure of recurring profit. This measurement basis is determined as profit attributable to equity holders of the Parent Company excluding the effects of nonrecurring items, net of their tax effects. Non-recurring items represent gains (losses) that, through occurrence or size, are not considered usual operating items, such as foreign exchange gains (losses), gains (losses) on disposal of investments, and other nonrecurring gains (losses).

Segment assets include all operating assets used by a segment and consist principally of operating cash and cash equivalents, inventories, financial assets at FVOCI, at FVTPL and at amortized cost, property and equipment, investments in associates and other noncurrent assets. Segment liabilities include all operating liabilities and consist principally of trade and other payables, short-term and long-term debts and other liabilities. Segment assets and liabilities do not include deferred income taxes.

The amounts of segment assets and liabilities and segment profit or loss are based on measurement principles that are similar to those used in measuring principles that are similar to those used in measuring assets and liabilities and profit or loss in the consolidated financial statements, which are in accordance with PFRSs.

There were no changes from prior periods in the measurement methods used to determine reported segment profit or loss and the effect, if any, of those changes on the measure of segment profit or loss.

The Group's identified reportable segments below are consistent with the segments reported to the BOD, which is the Chief Operating Decision Maker of the Group.

Financial information on the operation of the various business segments are as follows:

	December 31, 2019											
	Mining					Power		Services				
	HMC	CMC	TMC	RTN	DMC	EPI	NAC	RTN/TMC	HMC	Others	Eliminations	Total
External customers	₱1,710,882	₱3,639,129	₱8,239,456	₱3,259,849	₱–	₱235,557	₱156,694	₱681,727	₱–	₱–	₱–	₱17,923,294
Inter-segment revenues	–	–	–	–	–	–	–	–	6,905	623,372	(630,277)	–
Total revenues (see Notes 34 and 40)	1,710,882	3,639,129	8,239,456	3,259,849	–	235,557	156,694	681,727	6,905	623,372	(630,277)	17,923,294
Cost of sales	833,501	1,380,403	3,043,958	1,848,008	–	–	–	–	–	–	–	7,105,870
Cost of power generation	–	–	–	–	–	261,072	116,395	–	–	–	–	377,467
Cost of services	–	–	–	–	–	–	–	331,819	–	–	–	331,819
Excise taxes and royalties	153,979	646,373	823,945	163,026	–	–	–	–	–	–	–	1,787,323
Shipping and loading costs	222,206	510,593	849,888	174,816	–	–	–	–	9,513	–	–	1,767,016
Marketing	10,375	126,870	19,786	–	–	–	–	–	–	–	–	157,031
Segment operating earnings (loss)	₱490,821	₱974,890	₱3,501,879	₱1,073,999	₱–	(₱25,515)	₱40,299	₱349,908	(₱2,608)	₱623,372	(₱630,277)	₱6,396,768
General and administrative	₱104,543	₱57,647	₱108,998	₱96,443	₱148,747	₱96,190	₱–	₱–	₱–	₱543,416	₱–	₱1,155,984
Finance income	₱3,858	₱35,782	₱61,036	₱37,900	₱31	₱190	₱3,411	₱–	₱–	₱263,390	₱–	₱405,598
Finance expenses	₱3,553	₱6,057	₱15,816	₱13,723	₱2,437	₱180,979	₱–	₱49,581	₱–	₱71,509	₱–	₱343,655
Provision for (benefit from) income tax	₱96,107	₱233,654	₱990,870	₱303,804	(₱7,572)	(₱14,313)	₱–	₱–	₱–	₱52,956	₱–	₱1,655,506
Net income (loss) attributable to equity holders of the parent	₱281,948	₱686,503	₱1,973,658	₱536,034	(₱143,717)	(₱231,716)	₱43,710	₱–	₱–	(₱461,451)	₱–	₱2,684,969
Segment assets	₱1,579,961	₱3,110,111	₱11,102,061	₱4,007,523	₱1,332,289	₱11,603,132	₱1,009,087	₱–	₱48,764	₱13,970,761	₱–	₱47,763,689
Deferred income tax assets - net	46,338	47,143	128,207	131,690	69,959	2,922	–	–	–	72,005	–	498,264
Total assets	₱1,626,299	₱3,157,254	₱11,230,268	₱4,139,213	₱1,402,248	₱11,606,054	₱1,009,087	₱–	₱48,764	₱14,042,766	₱–	₱48,261,953
Segment liabilities	₱202,256	₱375,757	₱2,821,431	₱937,089	₱102,624	₱7,461,404	₱9,243	₱–	₱–	₱472,122	₱–	₱12,381,926
Deferred income tax liabilities	2,974	7,824	111,296	171,717	184,867	102,246	–	–	14,707	153,135	–	748,766
Total liabilities	₱205,230	₱383,581	₱2,932,727	₱1,108,806	₱287,491	₱7,563,650	₱9,243	₱–	₱14,707	₱625,257	₱–	₱13,130,692
Other segment information:												
Capital expenditures	₱104,037	₱211,762	₱426,525	₱113,717	₱70,535	₱128,608	₱3,871	₱–	₱–	₱196,468	₱–	₱1,255,523
Depreciation, amortization and depletion	₱175,130	₱182,046	₱580,296	₱168,759	₱37,419	₱160,725	₱55,823	₱–	₱9,513	₱28,599	₱–	₱1,398,310

	December 31, 2018											
	Mining					Power		Services				
	HMC	CMC	TMC	RTN	DMC	EPI	NAC	RTN/TMC	HMC	Others	Eliminations	Total
External customers	₱2,181,053	₱3,300,103	₱7,862,910	₱4,397,494	₱–	₱239,934	₱38,473	₱627,705	₱–	₱–	₱–	₱18,647,672
Inter-segment revenues	–	–	–	–	–	–	–	–	1,537	649,996	(651,533)	–
Total revenues (see Notes 34 and 40)	2,181,053	3,300,103	7,862,910	4,397,494	–	239,934	38,473	627,705	1,537	649,996	(651,533)	18,647,672
Cost of sales	1,010,158	1,093,753	2,526,732	2,140,310	–	–	–	–	–	–	–	6,770,953
Cost of power generation	–	–	–	–	–	299,399	61,223	–	–	–	–	360,622
Cost of services	–	–	–	–	–	–	–	317,542	716	–	–	318,258
Excise taxes and royalties	196,295	601,568	786,291	219,875	–	–	–	–	–	–	–	1,804,029
Shipping and loading costs	402,514	437,154	792,766	307,542	–	–	–	–	9,513	–	–	1,949,489
Marketing	8,836	115,340	16,034	–	–	–	–	–	–	–	–	140,210
Segment operating earnings (loss)	₱563,250	₱1,052,288	₱3,741,087	₱1,729,767	₱–	(₱59,465)	(₱22,750)	₱310,163	(₱8,692)	₱649,996	(₱651,533)	₱7,304,111
General and administrative	₱96,840	₱59,550	₱157,286	₱103,751	₱124,825	₱129,164	₱21,358	₱–	₱–	₱520,267	₱–	₱1,213,041
Finance income	₱2,464	₱30,855	₱43,390	₱35,571	₱42	₱158	₱932	₱–	₱–	₱241,391	₱–	₱354,803
Finance expenses	₱1,557	₱3,986	₱13,394	₱10,636	₱1,996	₱94,360	₱7,363	₱51,633	₱–	₱60,700	₱–	₱245,625
Provision for (benefit from) income tax	₱108,616	₱273,625	₱1,075,478	₱504,516	(₱19,091)	₱948	₱–	₱–	₱–	₱164,383	₱–	₱2,108,475
Net income (loss) attributable to equity holders of the parent	₱361,939	₱741,589	₱1,925,292	₱885,420	(₱112,659)	(₱715,206)	(₱50,539)	₱–	₱–	(₱27,779)	₱–	₱3,008,057
Segment assets	₱1,416,556	₱2,544,814	₱10,337,287	₱4,595,027	₱1,225,473	₱11,117,239	₱933,496	₱–	₱48,091	₱13,478,573	₱–	₱45,696,556
Deferred income tax assets	42,796	35,662	75,235	80,182	55,076	–	–	–	–	47,000	–	335,951
Total assets	₱1,459,352	₱2,580,476	₱10,412,522	₱4,675,209	₱1,280,549	₱11,117,239	₱933,496	₱–	₱48,091	₱13,525,573	₱–	₱46,032,507
Segment liabilities	₱235,508	₱337,815	₱2,412,939	₱1,092,732	₱89,563	₱7,265,872	₱4,599	₱–	₱–	₱388,548	₱–	₱11,827,576
Deferred income tax liabilities - net	5,125	5,051	60,429	156,285	177,556	113,652	–	–	17,561	218,442	–	754,101
Total liabilities	₱240,633	₱342,866	₱2,473,368	₱1,249,017	₱267,119	₱7,379,524	₱4,599	₱–	₱17,561	₱606,990	₱–	₱12,581,677
Other segment information:												
Capital expenditures	₱133,335	₱241,995	₱377,934	₱249,129	₱74,197	₱28,462	₱5,644	₱–	₱–	₱33,573	₱–	₱1,144,269
Depreciation, amortization and depletion	₱216,659	₱175,878	₱568,202	₱149,981	₱24,609	₱157,610	₱30,858	₱–	₱9,513	₱19,295	₱–	₱1,352,605

	December 31, 2017											
	Mining					Power		Services				
	HMC	CMC	TMC	RTN	DMC	EPI	NAC	RTN/TMC	HMC	Others	Eliminations	Total
External customers	₱2,326,086	₱2,248,439	₱5,728,026	₱4,594,530	₱–	₱212,152	₱–	₱630,063	₱–	₱–	₱–	₱15,739,296
Inter-segment revenues	–	–	–	–	–	–	–	–	3,976	550,635	(554,611)	–
Total revenues (see Notes 34 and 40)	2,326,086	2,248,439	5,728,026	4,594,530	–	212,152	–	630,063	3,976	550,635	(554,611)	15,739,296
Cost of sales	931,522	846,174	2,184,112	2,071,433	–	–	–	–	–	–	–	6,033,241
Cost of power generation	–	–	–	–	–	257,276	–	–	–	–	–	257,276
Cost of services	–	–	–	–	–	–	–	308,694	–	–	–	308,694
Excise taxes and royalties	162,826	344,781	458,242	137,837	–	–	–	–	–	–	–	1,103,686
Shipping and loading costs	499,431	425,524	551,437	283,205	–	–	–	–	9,513	–	–	1,769,110
Marketing	4,272	78,695	8,748	4,749	–	–	–	–	–	–	–	96,464
Segment operating earnings (loss)	₱728,035	₱553,265	₱2,525,487	₱2,097,306	₱–	(₱45,124)	₱–	₱321,369	(₱5,537)	₱550,635	(₱554,611)	₱6,170,825
General and administrative	₱87,442	₱36,480	₱125,379	₱59,073	₱69,898	₱117,647	₱27,400	₱–	₱–	₱339,834	₱–	₱863,153
Finance income	₱5,978	₱30,574	₱34,594	₱31,398	₱85	₱903	₱–	₱–	₱–	₱198,435	₱–	₱301,967
Finance expenses	₱2,757	₱5,531	₱13,014	₱9,956	₱1,067	₱143,142	₱–	₱42,645	₱–	₱71,148	₱–	₱289,260
Provision for (benefit from) income tax	₱143,366	₱140,563	₱721,040	₱611,662	₱15,258	(₱11,646)	₱–	₱–	₱–	₱116,613	₱–	₱1,736,856
Net income (loss) attributable to equity holders of the parent	₱500,093	₱416,018	₱1,328,377	₱1,019,140	(₱86,635)	(₱193,171)	(₱27,398)	₱–	₱–	(₱185,656)	₱–	₱2,770,768
Segment assets	₱1,615,725	₱2,278,744	₱9,305,400	₱4,760,082	₱1,209,246	₱11,816,229	₱836,478	₱–	₱33,592	₱13,548,509	₱–	₱45,404,005
Deferred income tax assets	47,738	32,692	85,256	63,429	52,108	–	–	–	–	51,871	–	333,094
Total assets	₱1,663,463	₱2,311,436	₱9,390,656	₱4,823,511	₱1,261,354	₱11,816,229	₱836,478	₱–	₱33,592	₱13,600,380	₱–	₱45,737,099
Segment liabilities	₱264,974	₱386,564	₱2,221,117	₱1,004,573	₱121,480	₱7,340,591	₱7,790	₱–	₱–	₱404,948	₱–	₱11,752,037
Deferred income tax liabilities - net	3,839	5,542	15,412	218,451	193,679	112,826	–	–	20,415	196,710	–	766,874
Total liabilities	₱268,813	₱392,106	₱2,236,529	₱1,223,024	₱315,159	₱7,453,417	₱7,790	₱–	₱20,415	₱601,658	₱–	₱12,518,911
Other segment information:												
Capital expenditures	₱80,245	₱210,998	₱341,973	₱86,517	₱81,642	₱637,543	₱27,607	₱–	₱–	₱27,933	₱–	₱1,494,458
Depreciation, amortization and depletion	₱265,899	₱150,875	₱549,083	₱310,915	₱7,866	₱161,027	₱2,472	₱–	₱9,513	₱22,395	₱–	₱1,480,045

Inter-segment revenues are eliminated upon consolidation.

The Group has revenues from external customers as follows:

Country of Domicile	**2019**	2018	2017
China	**₱10,845,464**	₱10,899,779	₱9,391,331
Local	**5,208,949**	5,449,781	3,867,539
Japan	**1,868,881**	2,298,112	2,480,426
	₱17,923,294	₱18,647,672	₱15,739,296

The revenue information above is based on the location of the customer. The local customers include CBNC and THNC, which are PEZA-registered entities.

Revenue from two (2) key customers for the sale of ores amounted to ₱9,806.9 million, ₱10,817.3 million and ₱8,059.0 million in 2019, 2018 and 2017, respectively.

SyCip Gorres Velayo & Co.
6760 Ayala Avenue
1226 Makati City
Philippines

Tel: (632) 891 0307
Fax: (632) 819 0872
ey.com/ph

BOA/PRC Reg. No. 0001,
October 4, 2018, valid until August 24, 2021
SEC Accreditation No. 0012-FR-5 (Group A),
November 6, 2018, valid until November 5, 2021

INDEPENDENT AUDITOR'S REPORT
ON SUPPLEMENTARY SCHEDULES

The Stockholders and the Board of Directors
Nickel Asia Corporation and Subsidiaries
28th Floor NAC Tower, 32nd Street
Bonifacio Global City, Taguig City

We have audited in accordance with Philippine Standards on Auditing, the consolidated financial statements of Nickel Asia Corporation and its subsidiaries as at December 31, 2019 and 2018, and for each of the three years in the period ended December 31, 2019, included in this Form 17-A and have issued our report thereon dated March 13, 2020. Our audits were made for the purpose of forming an opinion on the consolidated financial statements taken as a whole. The schedules listed in the Index to the Consolidated Financial Statements and Supplementary Schedules[i] are the responsibility of the Group's management. These schedules are presented for purposes of complying with the Revised Securities Regulation Code Rule 68, and are not part of the consolidated financial statements. These schedules have been subjected to the auditing procedures applied in the audit of the consolidated financial statements and, in our opinion, fairly state, in all material respects, the financial information required to be set forth therein in relation to the consolidated financial statements taken as a whole.

SYCIP GORRES VELAYO & CO.

Jaime F. del Rosario
Partner
CPA Certificate No. 56915
SEC Accreditation No. 0076-AR-5 (Group A),
April 30, 2019, valid until April 29, 2022
Tax Identification No. 102-096-009
BIR Accreditation No. 08-001998-72-2018,
February 14, 2018, valid until February 13, 2021
PTR No. 8125228, January 7, 2020, Makati City

March 13, 2020

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[i] This includes:

- Reconciliation of Retained Earnings Available for Dividend Declaration
- Map showing the relationships between and among the company and its ultimate parent company, middle parent, subsidiaries or co-subsidiaries, associates, wherever located or registered
- Supplementary schedules required by Annex 68-J:
  - Financial assets
  - Amounts receivable from directors, officers, employees, related parties, and principal stockholder (other than related parties)
  - Amounts of receivable from related parties which are eliminated during the consolidation of financial statements
  - Long-term debt
  - Indebtedness to related parties
  - Guarantees of securities of other issuers
  - Capital stock

INDEPENDENT AUDITOR'S REPORT ON COMPONENTS OF FINANCIAL SOUNDNESS INDICATORS

The Stockholders and the Board of Directors
Nickel Asia Corporation and Subsidiaries
28th Floor NAC Tower, 32nd Street
Bonifacio Global City, Taguig City

We have audited in accordance with Philippine Standards on Auditing, the consolidated financial statements of Nickel Asia Corporation and its subsidiaries (the Group) as at December 31, 2019 and 2018 and for each of the three years in the period ended December 31, 2019, and have issued our report thereon dated March 13, 2020. Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplementary Schedule on Financial Soundness Indicators, including their definitions, formulas, calculation, and their appropriateness or usefulness to the intended users, are the responsibility of the Company's management. These financial soundness indicators are not measures of operating performance defined by Philippine Financial Reporting Standards (PFRSs) and may not be comparable to similarly titled measures presented by other companies. This schedule is presented for the purpose of complying with the Revised Securities Regulation Code Rule 68 issued by the Securities and Exchange Commission, and is not a required part of the consolidated financial statements prepared in accordance with PFRSs. The components of these financial soundness indicators have been traced to the Group's consolidated financial statements as at December 31, 2019 and 2018 and for each of the three years in the period ended December 31, 2019 and no material exceptions were noted.

SYCIP GORRES VELAYO & CO.

Jaime F. del Rosario
Partner
CPA Certificate No. 56915
SEC Accreditation No. 0076-AR-5 (Group A),
April 30, 2019, valid until April 29, 2022
Tax Identification No. 102-096-009
BIR Accreditation No. 08-001998-72-2018,
February 14, 2018, valid until February 13, 2021
PTR No. 8125228, January 7, 2020, Makati City

March 13, 2020

NICKEL ASIA CORPORATION AND SUBSIDIARIES

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY SCHEDULES

FOR THE YEAR ENDED DECEMBER 31, 2019

SCHEDULE I

NICKEL ASIA CORPORATION
RECONCILIATION OF RETAINED EARNINGS AVAILABLE FOR DIVIDEND DECLARATION
AS OF DECEMBER 31, 2019

Unappropriated retained earnings, *as adjusted to available for dividend distribution,* as at December 31, 2018	₱9,830,541,713
Add: Net income actually earned/realized during the period	
Net income during the period closed to retained earnings	3,174,775,303
Less: Non-actual/unrealized income net of tax	
Unrealized foreign exchange gains - net, except those attributable to cash and cash equivalents	54,407,356
Fair value adjustments	(67,032,673)
Net income actually earned during the period	3,162,149,986
Less:	
Dividend declarations during the period	(957,752,258)
Treasury stock	(87,950,560)
TOTAL RETAINED EARNINGS AVAILABLE FOR DIVIDEND DISTRIBUTION AS AT DECEMBER 31, 2019	**₱11,946,988,881**

NICKEL ASIA CORPORATION AND SUBSIDIARIES

Schedule A. Financial Assets
December 31, 2019

Name of Issuing Entity and Description of Each Issue	Number of Shares or Principal Amount of Bonds and Notes	Amount Shown in the Statement of Financial Position	Value Based on Market Quotations at End of Reporting Date	Income Received and Accrued
	In Thousands			
Cash on hand and with banks	N/A	₱731,522	₱731,522	
Cash under managed funds	N/A	114,804	114,804	₱239,018
Short-term cash investments	N/A	11,096,802	11,096,802	
Cash and cash equivalents		11,943,128	11,943,128	239,018
Trade	N/A	642,527	642,527	–
Current portion of loan receivable	N/A	248,910	248,910	7,759
Interest receivable	N/A	54,533	54,533	–
Amounts owed by related parties	N/A	3,218	3,218	–
Others	N/A	84,077	84,077	–
Trade and other receivables		1,033,265	1,033,265	7,759
BPI Asset Management - debt securities	various	821,090	821,090	30,166
BDO Unibank, Inc. - debt securities	various	676,773	676,773	22,467
Credit Suisse AG - debt securities	various	524,791	524,791	22,495
Maybank ATR Kim Eng Capital Partners, Inc. - debt securities	various	381,286	381,286	15,207
DBS Private Bank - debt securities	various	235,730	235,730	12,757
Security Bank Corporation - debt securities	various	90,498	90,498	3,280
Financial assets at FVOCI		2,730,168	2,730,168	106,372

(Forward)

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule A. Financial Assets
December 31, 2019

Name of Issuing Entity and Description of Each Issue	Number of Shares or Principal Amount of Bonds and Notes	Amount Shown in the Statement of Financial Position	Value Based on Market Quotations at End of Reporting Date	Income Received and Accrued
		In Thousands		
Manila Golf and Country Club	1 share	₱76,000	₱76,000	₱–
Wack-Wack Golf and Country Club	1 share	37,000	37,000	–
Keyland Ayala Properties Inc. (formerly Security Land Corporation)	3,056,198 shares	623,931	623,931	22,922
NiHao Mineral Resources International, Inc.	101,000,000 shares	103,020	103,020	–
Eurasian Consolidated Minerals Pty. Ltd.	15,949,298 shares	83,051	83,051	–
PLDT Inc.	25,000 shares	24,700	24,700	1,800
Security Bank Corporation	58,027 shares	11,315	11,315	100
ATR Kim Eng Capital Partners, Inc. - Equity Opportunity Fund	25,479,005 units	93,717	93,717	–
Security Bank Corporation - Money Market Fund	39,796,443 units	55,181	55,181	–
ATR Kim Eng Capital Partners, Inc. - Alpha Opportunity Fund	14,541,224 units	20,096	20,096	–
BPI Asset Management - Money Market Fund	50,599 units	12,836	12,836	–
BDO Institutional Cash Reserve Fund	9,264 units	1,118	1,118	–
Credit Suisse AG - debt and equity securities	various	688,548	688,548	11,175
DBS Private Bank - debt and equity securities	various	319,068	319,068	10,274
Security Bank Corporation - equity securities	various	122,574	122,574	1,899
Maybank ATR Kim Eng Capital Partners, Inc. - debt and equity securities	various	110,139	110,139	1,213
Philam Asset Management Inc. - equity securities	various	68,699	68,699	1,034
BPI Asset Management - debt securities	various	44,573	44,573	–
BDO Unibank, Inc. - debt and equity securities	various	6,983	6,983	125
Financial assets at FVTPL		2,502,549	2,502,549	50,542

(Forward)

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule A. Financial Assets
December 31, 2019

Name of Issuing Entity and Description of Each Issue	Number of Shares or Principal Amount of Bonds and Notes	Amount Shown in the Statement of Financial Position	Value Based on Market Quotations at End of Reporting Date	Income Received and Accrued
		In Thousands		
Ayala Land, Inc.	₱65,000	₱65,000	₱65,000	₱3,264
Aboitiz Equity Ventures, Inc.	₱50,000	50,000	50,000	1,765
Retail Treasury Bond	₱130,000	130,000	130,000	4,170
SM Prime Holdings, Inc.	₱25,000	25,000	25,000	1,034
PLDT Inc.	₱20,000	20,000	20,000	836
ABS-CBN Corporation	₱–	–	–	522
JG Summit Corporation	₱–	–	–	551
Globe Telecom Inc.	₱10,000	10,000	10,000	391
DoubleDragon Properties Corporation	₱10,000	10,000	10,000	487
Security Bank Corporation - Tier II Funds	₱–	–	–	908
Security Bank Corporation	₱50,000	50,000	50,000	1,188
Philam Asset Management Inc. - debt securities	various	94,217	94,217	3,671
Financial assets at amortized cost		454,217	454,217	18,787
Current portion of long-term negotiable instruments	N/A	–	–	997
Prepayments and other current assets		–	–	997
Loan receivable - net of current portion	N/A	574,880	574,880	18,103
Long-term negotiable instruments - net of current portion	N/A	40,000	40,000	1,390
Other noncurrent assets		614,880	614,880	19,493
Total		₱19,278,207	₱19,278,207	₱442,968

NICKEL ASIA CORPORATION AND SUBSIDIARIES

Schedule B. Amounts Receivable from Directors, Officers, Employees, Related Parties and Principal Stockholders (Other than Affiliates)
December 31, 2019

Name and Designation of Debtor	Beginning Balance	Additions	Deductions: Amount Collected	Deductions: Amount Written-Off	Current	Noncurrent	Ending Balance
There are no receivables from Directors, Officers, Employees, Related Parties and Principal Stockholders other than subject to usual terms, for ordinary travel and expense advances, and for other such items arising in the ordinary course of business, and eliminated in consolidation.							

NICKEL ASIA CORPORATION

Schedule C. Amounts Receivable from Related Parties which are Eliminated in the Consolidated Financial Statements
December 31, 2019

Name of Subsidiary	Balance At January 1, 2019	Additions	Amounts collected	Reclassification	Amounts Written Off	Current	Noncurrent	Amount Eliminated
				In Thousands				
Dinapigue Mining Corporation	₱738,802	₱246,784	(₱180)	₱–	₱–	₱985,406	₱–	₱985,406
Coral Pearl Developments Limited	–	24,580	–	(184)	–	24,396	–	24,396
Cordillera Exploration Co., Inc.	6,731	270	–	–	–	7,001	–	7,001
Rio Tuba Nickel Mining Corporation	4,570	6,398	(7,390)	–	–	3,578	–	3,578
Hinatuan Mining Corporation	(924)	5,960	(7,406)	–	–	(2,370)	–	(2,370)
Cagdianao Mining Corporation	1,926	5,974	(7,343)	–	–	557	–	557
Taganito Mining Corporation	2,092	5,858	(7,426)	–	–	524	–	524
Emerging Power Inc.	34	38	(69)	–	–	3	–	3
Jobin-SQM, Inc.	–	13	(12)	–	–	1	–	1
	₱753,231	₱295,875	(₱29,826)	(₱184)	₱–	₱1,019,096	₱–	₱1,019,096

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule D. Intangible Assets - Other Assets
December 31, 2019

Description	January 1, 2019	Additions At Cost	Deductions: Charged to Costs and Expenses	Deductions: Charged to Other Accounts	Other Changes - Additions (Deductions)	December 31, 2019
	In Thousands					
Geothermal exploration and evaluation assets [(a)]	₱1,793,444	₱18,267	₱–	₱–	₱–	₱1,811,711
Other Noncurrent Assets [(b)]						
Deferred mine exploration costs	1,244,827	68,719	–	–	–	1,313,546
Project development costs	27,349	75,038	–	–	–	102,387
	₱3,065,620	₱162,024	₱–	₱–	₱–	₱3,227,644

(a) Disclosed in Note 11 to the Consolidated Financial Statements
(b) Disclosed in Note 13 to the Consolidated Financial Statements

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule E. Long-term Debts
December 31, 2019

Name of Issuer and Type of Obligation	Amount Authorized by Indenture	Amount Shown as Current	Amount Shown as Long-term	Remarks
	In Thousands			
Long-term Debts				
Taganito HPAL Nickel Corporation	₱–	₱88,611	₱930,418	A
Deferred Income				
Taganito HPAL Nickel Corporation	–	4,472	50,279	B
Total	₱–	₱93,083	₱980,697	

Remarks:
A. Interest rate is based on prevailing 180-day LIBOR plus 2% spread; principal is payable in semi-annual installments of US$875,000, payable in April and October until April 10, 2031.
B. The obligation is covered by a Lease Agreement with THNC.

NICKEL ASIA CORPORATION AND SUBSIDIARIES

Schedule F. Indebtedness to Affiliates and Related Parties (Short-term and Long-term Debts with Related Companies)
December 31, 2019

Name of Affiliate	January 1, 2019	December 31, 2019
	In Thousands	
Long-term Debts		
Taganito HPAL Nickel Corporation	₱1,150,188	₱1,019,029
Deferred Income		
Taganito HPAL Nickel Corporation	58,946	54,751
	₱1,209,134	₱1,073,780

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule G. Guarantees of Securities of Other Issuers
December 31, 2019

Name of Issuing Entity of Securities Guaranteed by the Company for which Statement is Filed	Title of Issue of Each Class of Securities Guaranteed	Total Amount Guaranteed and Outstanding	Amount Owned by the Company for which Statement is Filed	Nature of Guarantee

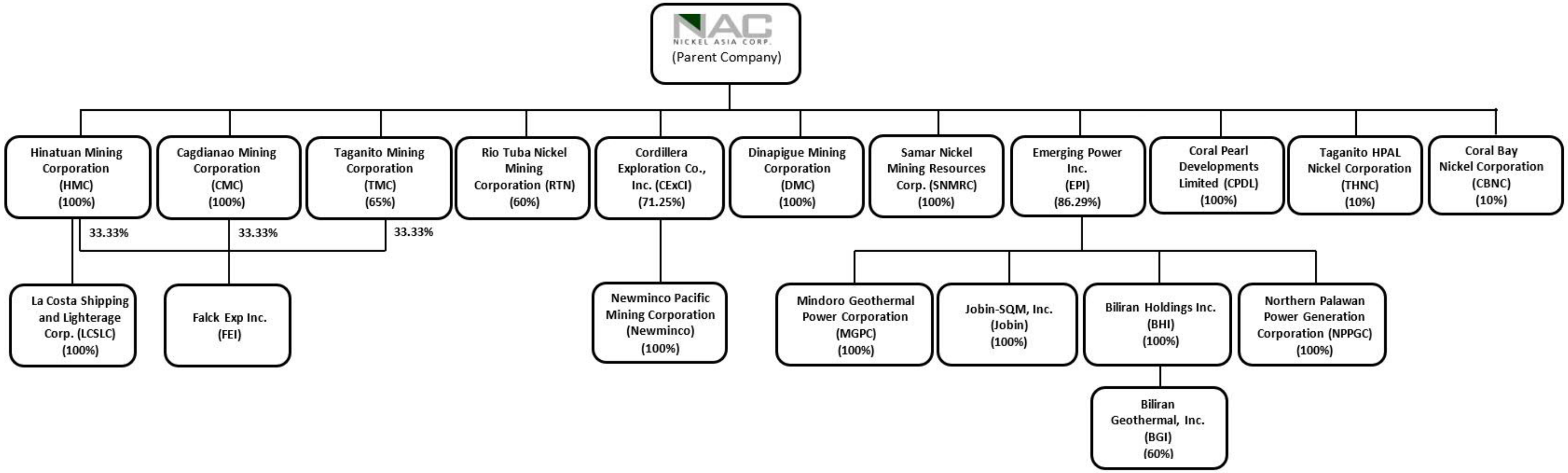
- Not applicable-

NICKEL ASIA CORPORATION AND SUBSIDIARIES
Schedule H. Capital Stock
December 31, 2019

Title of Issue	Number of Shares Authorized	Number of Shares Issued and Outstanding	Number of Shares Reserved for Options, Warrants, Conversions and Other Rights	Number of Shares Held By: Affiliates	Number of Shares Held By: Directors, Officers and Employees	Number of Shares Held By: Others
Common Stock	19,265,000,000	13,651,538,117	278,947,780	8,974,087,114	81,586,017	4,595,864,986
Preferred Stock	720,000,000	720,000,000	–	720,000,000	–	–

<u>**SCHEDULE III**</u>

NICKEL ASIA CORPORATION AND SUBSIDIARIES
A MAP SHOWING THE RELATIONSHIPS BETWEEN AND AMONG THE COMPANY AND ITS ULTIMATE PARENT COMPANY, MIDDLE PARENT, SUBSIDIARIES, CO-SUBSIDIARIES AND ASSOCIATES
DECEMBER 31, 2019



Note: There is no pyramid ownership structure and/or cross holding structure.

SCHEDULE IV

NICKEL ASIA CORPORATION AND SUBSIDIARIES
SCHEDULE SHOWING FINANCIAL SOUNDNESS
DECEMBER 31, 2019

	2019	2018
A. *Liquidity ratios*		
Current ratio	**2.22**	2.13
Quick ratio	**1.78**	1.63
Solvency ratio	**3.68**	3.66
B. *Financial leverage ratios*		
Debt ratio	**0.27**	0.27
Debt-to-equity ratio	**0.37**	0.38
Asset-to-equity ratios	**1.37**	1.38
Interest coverage	**20.62**	36.08
C. *Profitability ratios*		
Net profit margin	**0.21**	0.23
Return on assets	**0.08**	0.09
Return on equity	**0.11**	0.13
Gross profit margin	**0.57**	0.60
Price/earnings ratio	**16.95**	10.00

Annex A: Reporting Template

(For additional guidance on how to answer the Topics, organizations may refer to Annex B: Topic Guide)

Pursuant to Securities and Exchange Commission (SEC) Memorandum Circular (MC) No. 04, Series of 2019, Belle Corporation is attaching its 2019 Sustainability Report prepared in accordance with the Global Reporting Initiative's (GRI) Sustainability Reporting Standards: Core Option, which is an internationally recognized sustainability framework or standard, and shall be considered as our compliance to this MC.

Contextual Information

Company Details	
Name of Organization	
Location of Headquarters	
Location of Operations	
Report Boundary: Legal entities (e.g. subsidiaries) included in this report*	
Business Model, including Primary Activities, Brands, Products, and Services	
Reporting Period	
Highest Ranking Person responsible for this report	

**If you are a holding company, you could have an option whether to report on the holding company only or include the subsidiaries. However, please consider the principle of materiality when defining your report boundary.*

Materiality Process

Explain how you applied the materiality principle (or the materiality process) in identifying your material topics.[1]

[1] See *GRI 102-46* (2016) for more guidance.

ECONOMIC

Economic Performance

Direct Economic Value Generated and Distributed

Disclosure	Amount	Units
Direct economic value generated (revenue)		PhP
Direct economic value distributed:		
a. Operating costs		PhP
b. Employee wages and benefits		PhP
c. Payments to suppliers, other operating costs		Php
d. Dividends given to stockholders and interest payments to loan providers		PhP
e. Taxes given to government		PhP
f. Investments to community (e.g. donations, CSR)		PhP

What is the impact and where does it occur? What is the organization's involvement in the impact?	Which stakeholders are affected?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*(e.g. employees, community, suppliers, government, vulnerable groups)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Which stakeholders are affected?**	**Management Approach**
Identify risk/s related to material topic of the organization		
What are the Opportunity/ies Identified?	**Which stakeholders are affected?**	**Management Approach**
Identify the opportunity/ies related to material topic of the organization		

Climate-related risks and opportunities[2]

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities	Disclose the actual and potential impacts[3] of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	Disclose how the organization identifies, assesses, and manages climate-related risks	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material
Recommended Disclosures			
a) Describe the board's oversight of climate-related risks and opportunities	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term	a) Describe the organization's processes for identifying and assessing climate-related risks	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process
b) Describe management's role in assessing and managing climate-related risks and opportunities	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	b) Describe the organization's processes for managing climate-related risks	b) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios including a 2°C or lower scenario	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	

[2] Adopted from the Recommendations of the Task Force on Climate-Related Financial Disclosures. The TCFD Recommendations apply to non-financial companies and financial-sector organizations, including banks, insurance companies, asset managers and asset owners.
[3] For this disclosure, impact refers to the impact of climate-related issues on the company.

Procurement Practices

Proportion of spending on local suppliers

Disclosure	Quantity	Units
Percentage of procurement budget used for significant locations of operations that is spent on local suppliers		%

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Identify the opportunity/ies related to material topic of the organization		

Anti-corruption

Training on Anti-corruption Policies and Procedures

Disclosure	Quantity	Units
Percentage of employees to whom the organization's anti-corruption policies and procedures have been communicated to		%
Percentage of business partners to whom the organization's anti-corruption policies and procedures have been communicated to		%
Percentage of directors and management that have received anti-corruption training		%
Percentage of employees that have received anti-corruption training		%

What is the impact and where does it occur? What is the organization's involvement in the impact?	**Which stakeholders are affected?**	**Management Approach**
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Incidents of Corruption

Disclosure	**Quantity**	**Units**
Number of incidents in which directors were removed or disciplined for corruption		#
Number of incidents in which employees were dismissed or disciplined for corruption		#
Number of incidents when contracts with business partners were terminated due to incidents of corruption		#

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ENVIRONMENT

Resource Management

Energy consumption within the organization:

Disclosure	Quantity	Units
Energy consumption (renewable sources)		GJ
Energy consumption (gasoline)		GJ
Energy consumption (LPG)		GJ
Energy consumption (diesel)		GJ
Energy consumption (electricity)		kWh

Reduction of energy consumption

Disclosure	Quantity	Units
Energy reduction (gasoline)		GJ
Energy reduction (LPG)		GJ
Energy reduction (diesel)		GJ
Energy reduction (electricity)		kWh
Energy reduction (gasoline)		GJ

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Water consumption within the organization

Disclosure	Quantity	Units
Water withdrawal		Cubic meters
Water consumption		Cubic meters
Water recycled and reused		Cubic meters

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Materials used by the organization

Disclosure	Quantity	Units
Materials used by weight or volume		
• renewable		kg/liters
• non-renewable		kg/liters
Percentage of recycled input materials used to manufacture the organization's primary products and services		%

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Ecosystems and biodiversity (whether in upland/watershed or coastal/marine)

Disclosure	Quantity	Units
Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	(identify all sites)	
Habitats protected or restored		ha
IUCN[4] Red List species and national conservation list species with habitats in areas affected by operations	(list)	

[4] International Union for Conservation of Nature

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Environmental impact management

Air Emissions

GHG

Disclosure	Quantity	Units
Direct (Scope 1) GHG Emissions		Tonnes CO_2e
Energy indirect (Scope 2) GHG Emissions		Tonnes CO_2e
Emissions of ozone-depleting substances (ODS)		Tonnes

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linked to impacts through its business relationship)		
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Air pollutants

Disclosure	Quantity	Units
NO_x		kg
SO_x		kg
Persistent organic pollutants (POPs)		kg
Volatile organic compounds (VOCs)		kg
Hazardous air pollutants (HAPs)		kg
Particulate matter (PM)		kg

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Solid and Hazardous Wastes

Solid Waste

Disclosure	Quantity	Units
Total solid waste generated		kg
Reusable		kg
Recyclable		kg
Composted		kg
Incinerated		kg
Residuals/Landfilled		kg

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Hazardous Waste

Disclosure	Quantity	Units
Total weight of hazardous waste generated		kg
Total weight of hazardous waste transported		kg

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Effluents

Disclosure	Quantity	Units
Total volume of water discharges		Cubic meters
Percent of wastewater recycled		%

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Environmental compliance

Non-compliance with Environmental Laws and Regulations

Disclosure	Quantity	Units
Total amount of monetary fines for non-compliance with environmental laws and/or regulations		PhP
No. of non-monetary sanctions for non-compliance with environmental laws and/or regulations		#
No. of cases resolved through dispute resolution mechanism		#

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Identify the ***opportunity****/ies related to material topic of the organization*		

SOCIAL

Employee Management

Employee Hiring and Benefits

Employee data

Disclosure	Quantity	Units
Total number of employees[5]		
a. Number of female employees		#
b. Number of male employees		#
Attrition rate[6]		rate
Ratio of lowest paid employee against minimum wage		ratio

Employee benefits

List of Benefits	Y/N	% of female employees who availed for the year	% of male employees who availed for the year
SSS			
PhilHealth			
Pag-ibig			
Parental leaves			
Vacation leaves			
Sick leaves			
Medical benefits (aside from PhilHealth))			
Housing assistance (aside from Pag-ibig)			
Retirement fund (aside from SSS)			
Further education support			
Company stock options			
Telecommuting			
Flexible-working Hours			
(Others)			

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[5] Employees are individuals who are in an employment relationship with the organization, according to national law or its application (GRI Standards 2016 Glossary)
[6] Attrition are = (no. of new hires – no. of turnover)/(average of total no. of employees of previous year and total no. of employees of current year)

What are the Risk/s Identified?	Management Approach
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Employee Training and Development

Disclosure	Quantity	Units
Total training hours provided to employees		
a. Female employees		hours
b. Male employees		hours
Average training hours provided to employees		
a. Female employees		hours/employee
b. Male employees		hours/employee

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What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Labor-Management Relations

Disclosure	Quantity	Units
% of employees covered with Collective Bargaining Agreements		%
Number of consultations conducted with employees concerning employee-related policies		#

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Diversity and Equal Opportunity

Disclosure	Quantity	Units
% of female workers in the workforce		%
% of male workers in the workforce		%
Number of employees from indigenous communities and/or vulnerable sector*		#

**Vulnerable sector includes, elderly, persons with disabilities, vulnerable women, refugees, migrants, internally displaced persons, people living with HIV and other diseases, solo parents, and the poor or the base of the pyramid (BOP; Class D and E).*

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
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Identify the opportunity/ies related to material topic of the organization	

Workplace Conditions, Labor Standards, and Human Rights

Occupational Health and Safety

Disclosure	Quantity	Units
Safe Man-Hours		Man-hours
No. of work-related injuries		#
No. of work-related fatalities		#
No. of work related ill-health		#
No. of safety drills		#

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Labor Laws and Human Rights

Disclosure	Quantity	Units
No. of legal actions or employee grievances involving forced or child labor		#

Do you have policies that explicitly disallows violations of labor laws and human rights (e.g. harassment, bullying) in the workplace?

Topic	Y/N	If Yes, cite reference in the company policy
Forced labor		
Child labor		
Human Rights		

What is the impact and where does it occur? What is the organization's involvement in the impact?	**Management Approach**
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Supply Chain Management

Do you have a supplier accreditation policy? If yes, please attach the policy or link to the policy:

____

Do you consider the following sustainability topics when accrediting suppliers?

Topic	Y/N	If Yes, cite reference in the supplier policy
Environmental performance		
Forced labor		
Child labor		
Human rights		
Bribery and corruption		

What is the impact and where does it occur? What is the organization's involvement in the impact?	**Management Approach**
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	

What are the Opportunity/ies Identified?	Management Approach
Identify the opportunity/ies related to material topic of the organization	

Relationship with Community

Significant Impacts on Local Communities

Operations with significant (positive or negative) impacts on local communities (exclude CSR projects; this has to be business operations)	Location	Vulnerable groups (if applicable)*	Does the particular operation have impacts on indigenous people (Y/N)?	Collective or individual rights that have been identified that or particular concern for the community	Mitigating measures (if negative) or enhancement measures (if positive)

**Vulnerable sector includes children and youth, elderly, persons with disabilities, vulnerable women, refugees, migrants, internally displaced persons, people living with HIV and other diseases, solo parents, and the poor or the base of the pyramid (BOP; Class D and E)*

For operations that are affecting IPs, indicate the total number of Free and Prior Informed Consent (FPIC) undergoing consultations and Certification Preconditions (CPs) secured and still operational and provide a copy or link to the certificates if available: ______________

Certificates	Quantity	Units
FPIC process is still undergoing		#
CP secured		#

What are the Risk/s Identified?	Management Approach
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Customer Management

Customer Satisfaction

Disclosure	Score	Did a third party conduct the customer satisfaction study (Y/N)?
Customer satisfaction		

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Health and Safety

Disclosure	Quantity	Units
No. of substantiated complaints on product or service health and safety*		#
No. of complaints addressed		#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	

What are the Opportunity/ies Identified?	Management Approach
Identify the opportunity/ies related to material topic of the organization	

Marketing and labelling

Disclosure	Quantity	Units
No. of substantiated complaints on marketing and labelling*		#
No. of complaints addressed		#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Customer privacy

Disclosure	Quantity	Units
No. of substantiated complaints on customer privacy*		#
No. of complaints addressed		#
No. of customers, users and account holders whose information is used for secondary purposes		#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

Data Security

Disclosure	Quantity	Units
No. of data breaches, including leaks, thefts and losses of data		#

What is the impact and where does it occur? What is the organization's involvement in the impact?	Management Approach
Identify the impact and where it occurs (i.e., primary business operations and/or supply chain) *Indicate involvement in the impact (i.e., caused by the organization or linked to impacts through its business relationship)*	*What policies, commitments, goals and targets, responsibilities, resources, grievance mechanisms, and/or projects, programs, and initiatives do you have to manage the material topic?*
What are the Risk/s Identified?	**Management Approach**
Identify risk/s related to material topic of the organization	
What are the Opportunity/ies Identified?	**Management Approach**
Identify the opportunity/ies related to material topic of the organization	

UN SUSTAINABLE DEVELOPMENT GOALS

Product or Service Contribution to UN SDGs

Key products and services and its contribution to sustainable development.

Key Products and Services	Societal Value / Contribution to UN SDGs	Potential Negative Impact of Contribution	Management Approach to Negative Impact

** None/Not Applicable is not an acceptable answer. For holding companies, the services and products of its subsidiaries may be disclosed.*

Nickel Asia Corporation
Sustainability Report 2019

CONTEXTUAL INFORMATION

Company Details	
Name of Organization	Nickel Asia Corporation and Subsidiaries
Location of Headquarters	28th Floor, NAC Tower, 32nd Street, Bonifacio Global City, Taguig City
Location of Operations	Dinagat Islands Tagana-an, Surigao del Norte Bataraza, Palawan Claver, Surigao
Report Boundary: Legal entities (e.g. subsidiaries) included in this report*	Cagdianao Mining Corporation (CMC) Hinatuan Mining Corporation (HMC) Rio Tuba Nickel Mining Corporation (RTN) Taganito Mining Corporation (TMC)
Business Model, including Primary Activities, Brands, Products, and Services	Production of lateritic ore
Reporting Period	January 1, 2019 to December 31, 2019
Highest Ranking Person responsible for this report	Jose B. Anievas, Chief Operating Officer

**If you are a holding company, you could have an option whether to report on the holding company only or include the subsidiaries. However, please consider the principle of materiality when defining your report boundary.*

REPORT BOUNDARIES
GRI 102-46, GRI 102-54

This is the seventh consecutive year that Nickel Asia Corporation (NAC) is reporting on the progress of its Sustainability initiatives and programs for its operating mines, namely RTN, TMC, HMC, and CMC. Covering the calendar year 2019, this report was prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option, using a globally shared framework of indicators for transparency and consistent tracking of performance results. NAC releases this report for the benefit of our stakeholders who may be interested to know the Company's performance in the triple bottom line of economic, environmental, and social development.

ECONOMIC PERFORMANCE

Indicator	RTN	TMC	HMC	CMC
1. Shareholding Percentage	60%	65%	100%	100%
2. Financial Highlights (in million Php)				
· Direct Revenue Generated	3,493	8,688	1,718	3,639
· Costs and Expenses	2,547	5,291	1,525	2,911
· Total Assets	3,691	11,117	1,660	3,146
· Taxes, licenses, and fees paid	696	2,238	353	878
· Employee Compensation and Benefits	647	517	192	182
· Dividends to stockholders	700	2,500	330	425
· Payments to suppliers	1,393	3,383	439	2,238
3. Amount of Ore sold (in thousand WMT)	4,878	9,163	2,020	2,777

ENVIRONMENTAL PERFORMANCE

Indicator	RTN	TMC	HMC	CMC
1. Total spending for Environmental Protection and Enhancement Program (EPEP) (Php)	80,943,200	215,834,899	156,827,705	55,217,340
2. Rehabilitation efforts				
i. Number of hectares rehabilitated	33.5	45.8	70.0	10.5
ii. Number of seedlings planted in rehabilitated area	86,686	52,303	260,145	21,730
3. Reforestation efforts				
i. Number of hectares reforested within Mineral Production Sharing Agreement (MPSA) area	0	22.5	60.7	14.6
ii. Number of hectares reforested outside MPSA area	3.7	0	10.1	26.1
iii. Number of seedlings planted within MPSA area	0	40,779	260,145	18,620

iv. Number of seedlings planted outside MPSA area	9,250	0	28,501	48,793
4. Pollution control				
i. Consumption of energy (MWh)	2,396	2,166	671	1,304
ii. Total fuel consumption – Genset (ltrs)	115,592	179,004	191,734	525,035
iii. Total fuel consumption – others (ltrs)	9,543,489	16,743,276	6,085,805	8,863,088
iv. Total Greenhouse Gas (GHG) emissions (TCO_2 e)	27,068	46,627	17,831	23,383
5. Waste management				
i. Volume of Solid Waste disposed (kg)	332,670	49,241	68,250	43,672
ii. Volume of used oils (ltrs)	84,268	97,200	66,800	41,922
6. Watershed management				
i. Volume of silt collected (cu. m)	57,888	3,499	109,451	72,468
i. Volume of water consumption (cu. m)	602,205	57,328	87,054	89,048
ii. Volume of water discharge (per source and outlet) (cu. m)	1,944,005	0	255,609	24,365
7. Land use (hectares)				
i. Disturbed	457	2,241	169	234
ii. Rehabilitated	189	239	302	43
iii. Other use	750	486	0	109

SOCIAL PERFORMANCE

Indicator	RTN	TMC	HMC	CMC
1. Employees				
i. Number of employees	1,163	668	324	236
ii. Number of people indirectly employed (through contractors)	464	1,005	141	681
iii. Number of employees from local communities	681	531	171	104
iv. Percentage of employees under Collective Bargaining Agreement (CBA)	83%	62%	48%	39%
v. Average training hours per employee	47.64	50.44	72.60	58.89
2. Health and Safety				
i. Number of employees in health and safety committee	45	55	28	35
ii. Total man hours	5,836,303	7,214,579	4,429,835	4,281,251
iii. Incidence Rate	1.71	7.07	9.93	7.01

iv. Total Lost days	6,018	18,000	0	0
3. Communities				
i. Total spend on Social Development and Management Program (SDMP) (in million Php)	30	53	22	37
ii. Population of neighboring communities	90,221	13,287	22,091	5,190
iii. Number of Indigenous People (IP) communities residing near the mine site	21,075	700	0	0
4. Social Development Focus Area: SDMP + Corporate Social Responsibility (CSR)				
i. Education				
a. Number of Scholars	186	295	1,305	1,774
ii. Health				
a. Number of patients/cases treated in hospital	14,873	298	None	18
b. Number of patients that benefited from Medical Mission	437	298	1,406	32
c. Assistance to Calamity victims (number of families)	0	2,000	500	1,000
d. Admitted/confined patients	2,063	0	0	50
iii. Infrastructure				
a. Number of kilometers of roads constructed/improved and amount (km/Php)	2km/Php 159,000	0	0	19.9km/Php 1.7M
b. Value of other infrastructure projects (Php)	5,242,139	11,015,317	3,740,186	7,694,816
5. Livelihood				
a. Number of Peoples Organizations (POs)	12	15	1	17
b. Members	684	272	32	1,063

AWARDS & RECOGNITIONS

NAC and its leadership has been at the forefront of the industry's campaign towards the practice of Sustainable Mining.

In 2019, NAC subsidiaries won several awards during the 66th Annual National Mine Safety and Environment Conference (ANMSEC), with CMC being bestowed the Presidential Mineral Industry Environmental Award (PMIEA). CMC likewise received the second highest safety performance award – the Safest Surface Mines and the Overall Safest Mine Operations.

These awards are given to operating mines that have shown exemplary performance in the areas of environmental enhancement and protection, safety, health, social development, and corporate social responsibility. Likewise, HMC received the Platinum Award in the surface mining category and garnered first runner-up honors in the Best Forest Award.

Awarding Body	Award	Pillar	Recipient
Philippine Mine Safety and Environment Association	Presidential Mineral Industry Environmental Award	Overall	CMC
	Safest Surface Mining Operation Award	Safe Workplace	CMC
	Safest Mining Operation Award	Safe Workplace	CMC
	Best Safety Inspector Award (Safety Manager)	Safe Workplace	CMC (Archie Sierra)
	Platinum Award: Surface Mining	Overall	HMC
	1st Runner Up: Best Mining Forest for Metallic Mines	Protecting the Environment	HMC
	Best Mine Supervisor for Surface Mining	Overall	HMC (James Wilkins Asio)
	Best Miner for Surface Mining	Overall	HMC (Angelo Cañada)
	Champion: Mine Safety Field Demonstration	Safe Workplace	RTN
	Best in First Aid Competition	Safe Workplace	RTN
	3rd Runner Up: Best Mining Forest Program	Protecting the Environment	RTN
Regional Disaster Risk Reduction and Management Council	1st Place: Gawad Kalasag Search for Excellence in Disaster Risk Reduction and Management and Humanitarian Assistance (Best Private Organization Category)	Safe Workplace	TMC
ASEAN Mineral Awards	Runner-up: Metallic Mineral Mining	Overall	RTN

The Company also continues to implement Information, Education, and Communication (IEC) programs to inform various stakeholders, anti-mining groups, and the general public as to how responsible mining is beneficial to the economy and to the people in mining communities.

As NAC continues to move forward on its sustainability journey, NAC welcomes guests to visit and inspect our mine sites to see and experience for themselves the effectiveness of our environmental and people-focused programs. For instance, we were happy to welcome Trade Union Congress of the Philippines (TUCP) Party-List Representative Raymond Democrito Mendoza who came to visit and see for himself RTN's rehabilitation efforts for mined-out areas. Going around the area, Rep. Mendoza and his party saw that responsible mining exists in the Philippines and noted how proper fund management has created better results in the rehabilitation of mined-out areas.

OUR APPROACH TOWARDS SUSTAINABILITY

NAC's interests are aligned with our stakeholders. Our actions and choices reflect values that are shared with our employees and the people in the communities where we operate, including honesty, transparency, and integrity. We are committed to protecting our employees, the communities, our customers, and the environment by institutionalizing mining practices that are responsible, sustainable, and profitable.

Recognizing its role as a responsible corporate citizen that is part of an industry supporting national progress, the Company maintains an active participation in organizations that shares its values, principles, and advocacies.

Hence, NAC actively supports the initiatives of the Chamber of Mines of the Philippines (COMP), particularly its decision to mandate the adoption of Canadian standards or "Toward Sustainable Mining" (TSM) of its member mining companies. TSM will ensure that the COMP's member mining companies are accountable, transparent, and credible with respect to their mining practices. The TSM standard covers key areas, including tailings management, community outreach, safety and health, biodiversity conservation, crisis management, energy use, and greenhouse gas emissions. NAC also fully supports the COMP's adoption of the Declaration of Commitment to Responsible Minerals Development in the Philippines, otherwise known as "The Baguio Declaration".

The Company's management approach is fully aligned with the five main principles of the Baguio Declaration and its five elements of Responsible Minerals Development:

- People Orientation
- Protection and enhancement of the environment
- Respect for the rights and welfare of indigenous peoples
- Fair contribution to the National Economy
- Efficient, competitive, and compliant with international standards

ALIGNMENT TO UN SUSTAINABLE DEVELOPMENT GOALS

NAC's environment, social, and governance initiatives work in consonance with the Company's overall objective to support the United Nations Sustainable Development Goals (UN SDGs). Focused on five key pillars to drive significant and meaningful impact for its stakeholders, NAC's Sustainability Framework effectively aligns its various efforts towards the world's shared goal of enabling long-term positive change.

SUSTAINABILITY FRAMEWORK

Protecting the Environment

Energy Consumption and Management
Rehabilitation and Reforestation
Water Consumption and Discharge
Waste Management
Dust and Noise Control

We acknowledge our responsibility to protect, reclaim and enhance the environment in which we operate through able management and steadfast environmental stewardship. Our companies address environmental impacts through their respective Environmental Protection and Enhancement Program (EPEP).

Empowering Communities

Social Development
Management Programs
Health, Education, Livelihood and Infrastructure Programs
Indigenous Peoples Rights
Social Impact Assessment

Through our Social Development Management Programs (SDMPs), which are mandated social expenditures, and Corporate Social Responsibility (CSR) programs, which are voluntary and go beyond SDMP requirements, we aim to empower our shared communities. These projects are done in collaboration and with the support of local government units/organizations. Each SDMP is made in consultation with stakeholders in consideration of the important social, cultural, environmental, and economic factors affecting them.

Good Governance

Leadership and Commitment
Environmental, Social, and Economic Risk Management
Governance Policies
Stakeholder Management

We strive to act as a responsible corporate citizen and lend our expertise to help engage in constructive public dialogue and informed debate on issues of importance to us as a company, the mining industry and in the communities where we operate.

Welfare of Our Employees

Employee Relations and Management
Collective Bargaining Agreement
Skills and Competency Development
Human Rights and Equal Opportunities

Each of our employees is respected and valued and we fully observe human rights, occupational saftey and non-discrimation on workplace. We do our outmost to develop employee potential, compensate fairly and commensurately to performance and provide growth opportunities.

Safe Workplace

Safety and Health Progress and Procedures
Education and Training on Health and Safety Topics
Emergency Response and Crisis Management
Security of Mine Sites and Maintenance of Equipment

We promote a strong culture of safety embedded in operational excellence and robust risk management. We approach safety with a multi-level focus to empower our personnel to embrace the value of accident prevention and control loss.

STAKEHOLDER ENGAGEMENT

GRI 102-40, GRI 102-42, GRI 102-43, GRI 102-44

All throughout the year, NAC maintains a variety of communication channels and platforms that offer opportunities for its stakeholders to be updated and informed of its activities. Anchored on the principles of transparency and accountability, we utilize a range of tools and platforms such as the corporate website, fora and events, and official report documents. It is the policy of the Company to actively create venues for dialogue in order to make the case for responsible mining.

STAKEHOLDER ENGAGEMENT

Stakeholders	Engagement Method	Frequency	Key Concerns	Company's Response
Employees	❑ Employee Engagement Programs	As necessary	❑ Focus on work-life balance	❑ Service Tenure Awards ❑ CSR/Environmental Voluntary Activities
Communities	❑ SDMP and CSR Programs ❑ Community engagement to prioritize and implement programs	As necessary	❑ Socio-economic development of communities ❑ Provision of education support	❑ Implementation of SDMP and CSR programs by Community Relations Team (Comm Rel)
Media	❑ Press release ❑ Interviews ❑ Official media statements ❑ Public advisories ❑ Press conferences ❑ Site tours	As necessary	❑ Product brief/details ❑ Transparency ❑ Factual information ❑ Timely release of announcement	❑ Availability of spokesperson ❑ Media events ❑ Press kits ❑ Factsheets ❑ Market information
LGUs/ Regulators	❑ Annual/ Quarterly/ Monthly Reports	As necessary	❑ Inaccurate disclosures ❑ Non-compliance to standards	❑ Timely and accurate release of reports ❑ Strict compliance to regulatory norms
Suppliers	❑ Accreditation process ❑ Annual	Once a year	❑ Transparency in accreditation ❑ Integrity of bids	❑ Clear and transparent accreditation

	meetings with security agencies		❑ Timeliness of payments	criterion ❑ Auditable bidding process
Industry Associates	❑ Regular industry meetings	As scheduled	❑ Sharing of industry standards and best practices	❑ Regular update on the industry outlook and standards
Shareholders/ Investors	❑ Annual Stockholders' Meeting ❑ General Board Meeting ❑ One-on-one investor meeting	❑ Annual ❑ Quarterly ❑ On demand	❑ Higher financial returns ❑ Minimum risks related to business and expansion	❑ Stable dividends ❑ Regular disclosure of financial performance
Partners	❑ Corporate events/ forums	As scheduled	❑ Transparency in disclosures ❑ Alignment of advocacies	❑ Regular disclosure of overall performance

MATERIAL ASPECTS OF SUSTAINABILITY

NAC subscribes to the principle of materiality promulgated by the GRI standards, making the practice of sustainability reporting meaningful.

The Company therefore applies GRI's prescribed five-stage process to identify material aspects of sustainability and level of criticality for stakeholders. This rigorous process maintains the quality of our reporting and helps keep our programs effective and relevant.

1. **Identifying Material Aspects**	Using GRI guidelines, we determined all the material aspects that are critical for our operations.
2. **Assessing the Level of Criticality**	For all the identified material aspects, we conducted workshops for the sustainability representatives from each of the operating mine sites to assess the level of criticality. The level of criticality was assessed based on the operational, regulatory and legal, environmental, and social impacts.
3. **Determining the Current Performance**	We monitored our current performance and compared it with previous years' performance for analysis. Monitoring data are reported in our 2019 Sustainability Report.
4. **Recognizing Stakeholder Needs**	We assessed our stakeholder needs as gathered through various stakeholder engagement channels, identifying priorities that address

	their real needs and interests as aligned with the UN SDGs.
5. **Setting Up Targets and Objectives**	Moving forward, we realigned and set up plans as needed. We articulated targets and measurable objectives and operationalized the application of our workshop results, cascading the new information to concerned teams.

ECONOMIC

1. Leadership and Governance
2. Fluctuation of Metal Prices
3. Local Employment
4. Supply Chain Management

ENVIRONMENT

1. Energy Consumption (Fuel and Electricity)
2. Biodiversity Offsets
3. Water and Wastewater Management
4. Dust and Noise Pollution
5. Solid/Hazardous Waste Management
6. GHG Emissions

SOCIAL

1. Maintenance and Security of Plant and Production Sites
2. Human Rights Violations (Child Labor, Forced Labor)
3. Community Development
4. Health and Safety - Employees/Communities
5. Freedom of Association
6. Consumer Data Protection
7. Risks of Conflicts with Local Communities/ Indigenous People
8. Employees Training and Skills Development
9. Corruption and Human Rights Violation
10. Employee Retention and Relations

OUR SUSTAINABILITY PERFORMANCE

GOOD GOVERNANCE

SDG HIGHLIGHTS

SDG 8	18,838 WMT of ore sold
SDG 17	Php 4.2 Billion Taxes Paid

NAC and its employees strive every day to ensure that our actions and decisions are guided by our values and the principles of ethics and good governance. The goal is to create value and positive impact on the lives of our stakeholders. The Company has institutionalized these attributes in policies and processes that enable people to responsibly contribute, grow, and pursue their career goals as they help the Company achieve its vision.

ECONOMIC PERFORMANCE

GRI 103-1, GRI 103-2, GRI 103-3

In provinces or regions where our mines are located, our operations have a significant contribution to the local economy, providing direct and indirect employment of close to 7,000 employees. What's more, purchases from local suppliers account to about 39% of our total procurement. At the national level, our operations paid ₱674 million in excise taxes and ₱1.67 billion in income taxes. Total taxes paid by our operations in 2019 reached ₱4.2 billion including ₱290.4 million paid to the local government units.

Through these taxes, NAC was able to positively impact the communities in which we operate. For instance, the Municipality of Bataraza in the province of Palawan unveiled two major projects funded by municipal taxes, a large majority of which was sourced from RTN and Coral Bay Nickel Corporation (CBNC). Acting municipal treasurer Romana Bermudez said that the companies' [RTN and CBNC] payment on real property and business taxes has a "huge impact'' on the economic growth of the town which is poised to become the first city in southern Palawan come 2020.

Aside from the mandated SDMP, NAC and its operating companies also have corporate social responsibility (CSR) programs that aim to improve the well-being and economic condition of the people in host and neighboring communities. Where Indigenous Peoples (IPs) reside in our host communities, we share 1% of our revenues to the IPs in the form of royalty. We also share part of our revenue to the IPs in Rio Tuba even though the IP community there was not acknowledged by the National Commission in Indigenous Peoples (NCIP) to have ancestral domain over the areas of our mining operation. Total royalties paid amounted to P115 million.

SUPPLY CHAIN MANAGEMENT

GRI 103-1, GRI 103-2, GRI 103-3

SUPPLIER SPENDING (IN MILLION PHP) GRI 204-1

Indicator	RTN	TMC	HMC	CMC	Total
Total Spending	1,393	3,383	439	2,238	7,453
Spending on Local Suppliers	157	1,958	87	713	2,915
Percentage of spending on local suppliers	11%	58%	20%	32%	39%

NAC manages its supply chain with an accreditation process which includes environmental performance in the criteria reviewed by an Accreditation Committee. Aside from track record, quality, cost, and delivery lead times, the committee insists on Safety, Environmental, and Regulatory compliance in its suppliers and vendors.

Whenever possible, the Company prioritizes local suppliers because the majority of them are already authorized distributors of foreign principals, and it can take advantage of paying in Peso and having standard terms of payment.

And because an efficient supply chain is essential to sustainability, NAC takes proactive measures to prevent possible incidents of sub-standard quality of materials or service from suppliers, whether local or foreign, through constant coordination with end-users to monitor performance. The Company also maintains up to date intelligence from accredited foreign suppliers to get the latest information about possible distribution of fake and imitation products in the market.

ANTI-CORRUPTION

GRI 103-1, GRI 103-2, GRI 103-3

The Company had no recorded complaints or cases of corruption in 2019. The Company's drive for anti-corruption is institutionalized within the Code of Business Conduct and Ethics and in the Corporate Governance Manual. These policies are emphasized during new hire orientations as well as during the annual general orientation held for all employees.

Through the annual renewal of certificate of integrity and compliance by all employees, each one is able to acknowledge that they have read and understood the Code of Business Conduct and Ethics. This helps ensure that NAC's principles are kept fresh in our people's consciousness, helping them stay alert to potential risks.

ENSURING GOOD LABOR PRACTICES

GRI 103-1, GRI 103-2, GRI 103-3

NAC conscientiously adheres to all Labor Laws, particularly those that cover child labor, forced labor, and the respect for human rights. The Company therefore had no recorded incidence of violations for 2019. Indeed, we are an equal opportunity employer, mandating non-discrimination policy in the workplace, especially during the hiring process.

Any complaint of such nature will be treated seriously and with due process. We provide employees with open channels to freely communicate their concerns without fear of retaliation. To encourage employees to share feedback and concerns, there is a feedback monitoring form which can be dropped in suggestion boxes that can only be opened by the IMS coordinator. Suggestions and concerns are forwarded to the proper departments and are treated as confidential documents. Replies are forwarded to the employee concerned.

COMPLIANCE

GRI 103-1, GRI 103-2, GRI 103-3

As a point of principle, NAC is resolutely environmentally compliant. We adhere to the policies and laws prescribed by the DENR-Mines and Geosciences Bureau (MGB), the Environmental Management Bureau (EMB), the Biodiversity Management Bureau (BMB), the Department of Labor and Employment (DOLE), the Department of Health (DOH), the National Commission on Indigenous Peoples (NCIP), and the local government units (LGUs).

All NAC subsidiaries abide by commitments stipulated in their Environmental Compliance Certificates (ECC) and specified in their approved Work Programs. We respect and follow all pertinent rules and requirements for responsible mining operations including the following:

PERTINENT LAWS AND COMPLIANCE

Law	Compliance
Republic Act No. 7942 (Philippine Mining Act of 1995), Consolidated DENR Administrative Order 2010-21	❑ Preparation of an Annual Environmental Protection and Enhancement Plan (AEPEP) for each mine site ❑ Submission of annual AEPEP reports for each mine site ❑ Progressive rehabilitation of mined-out areas
Executive Order No. 26 (National Greening Program)	❑ Integration of biodiversity management to the Mining Forest and National Greening Program ❑ Establishment of more than 650 hectares of tree plantations including mangroves ❑ Maintenance of a biodiversity area where different tree species are earth-balled and propagated ❑ Reforestation with indigenous species to preserve the natural flora biodiversity of the affected sites

Republic Act No. 9003 (Ecological Solid Waste Management Program)	❑ Upcycling projects ❑ No-to-Plastic policy ❑ Integrated waste management program that includes waste diversion of biodegradable and recyclable wastes ❑ Replacing steel-belted tires with a more recyclable alternative: nylon-belted tires ❑ Bioreactor processing, vermicomposting, and mulching of biodegradable wastes ❑ Materials Recovery Facility (MRF) for sorting recyclable and reusable wastes ❑ Sanitary landfill for disposal of residual wastes
Republic Act No. 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act), DENR Administrative Order 2013-22	❑ Regular maintenance of equipment that extends its life and delays its disposal ❑ Partnership with DENR-accredited haulers and TSD facilities specific to each hazardous waste generated ❑ Recharging of batteries ❑ Shifting to energy-saving and eco-friendly devices and equipment ❑ Monitoring of hazardous wastes from cradle to grave
Republic Act No. 8749 (Philippine Clean Air Act)	❑ Regular monitoring of sources of Scope 1, 2, and 3 emissions ❑ Use of mercury-free LED and inverter appliances ❑ Fuel consumption reduction program ❑ Efficient management of activities with high carbon footprint ❑ Use of conveyor belt system to reduce fuel consumption by dump trucks ❑ Regular measurement of dust emissions ❑ Stack emission sampling of new air pollutant sources ❑ Air quality management program to continuously ensure good air quality conditions ❑ Deployment of water lorries to designated strategic areas to address dust exceedances
Republic Act No. 9275 (Philippine Clean Water Act)	❑ Periodic monitoring of water sources ❑ Establishment of water treatment facility that generates potable water
Republic Act No. 8371 (Indigenous Peoples' Rights Act)	❑ Sharing of 1% of revenue to IPs in the form of royalties, amounting to P115 million for 2019

	❑ Provision of housing and other benefits to IP communities
Republic Act No. 9729 (Climate Change Act)	❑ Regular monitoring of greenhouse gases (GHG) emissions ❑ Usage of renewable energy for perimeter lighting ❑ Implementation of fuel consumption reduction programs ❑ Conduct of emergency and disaster preparedness programs for local communities
DENR Department Administrative Order 2004-52 (The Revised Guidelines in the Issuance of Cutting/ Harvesting Permits in Private Titled Lands)	❑ Strict implementation of proper handling of cleared vegetation ❑ HMC conducted its earth-balling project in compliance to special tree cutting and earth-balling permits
DENR Department Administrative Order 2015-07 (Mandating Mining Contractors to Secure ISO 14001 Certification)	❑ All of NAC's mine sites are ISO 14001 certified
DENR Department Administrative Order 2016-01 (Audit of all Operating Mines and Moratorium on new Mining Projects)	❑ DENR conducted an audit of NAC's mine sites which consisted of an examination of all applicable permits, adherence to the conditions of the Environmental Management Certificates (ECC), observation of actual operations, and interviews with various stakeholders
Republic Act No. 10173 (Data Privacy Act)	❑ Appointed a data protection officer ❑ Implementing measures to protect systems from inbound and outbound attacks or DDOS ❑ Deploying cloud-based email protection to prevent spam, phishing, and malware

CARING FOR OUR PEOPLE

SDG HIGHLIGHTS

SDG 8	2,445 Employees in Workforce
SDG 5	13% Women in Workforce
SDG 5	33% Women in Supervisory and Managerial Position
SDG 8	1,487 Employees Hired from Local Community
SDG 10	93 Indigenous Peoples (IP) in the Workforce
SDG 4	60,489 Training Hours for Employees
SDG 5	100% of Women Returned to Work after Parental Leave
SDG 8	1,177 Employees under CBA

At NAC, our people are valued for their inherent talent, contribution, and essential role in the organization's sustainable growth. The Company stands together in supporting the principles of human rights, fair compensation, the practice of non-discrimination and equal employment, and development through continuous learning.

The Company's battle cry for 2019, "Marching towards a sustainable future", reflected its goal of ensuring focus on employee welfare and the Company's ability to attract and retain competent and productive employees.

NAC ensures that it provides equal chances of employment as long as the applicants are qualified and have the ability to perform the job function. It chooses the best available person for each position through the assessment of their technical and professional skills, personal growth, and behavioral characteristics.

In 2019, a total workforce of 2,445 was gainfully employed by the Company with an industry-typical ratio of males to females of about 1:7. NAC, however, supports and promotes Women in Mining, having employed women even in typically male positions such as operators and drivers. This is also evident in the distribution of management roles filled predominantly by men, with about 23% filled by women, where the percentage of women in Senior Management grew to 16%, compared to 12% in the previous year.

For one, the NAC Board welcomed Maria Patricia Zamora-Riingen as its newest member, bringing with her years of valuable leadership experience in a variety of sectors. The Company is also proud of its other women leaders: Senior Vice President for Compliance and Corporate Services, Georgina Carolina Y. Martinez; Vice President for Internal Audit, Maria Angela G. Villamor; Assistant Vice President for Finance, Iryan Jean U. Padillo; Corporate Secretary, Barbara Anne C. Migallos; and TMC Vice President for Finance, Lennie A. Terre.

At RTN, Engineer Cynthia E. Rosero was recognized by the MGB for being the first-ever woman Resident Mine Manager in the Philippines, the highest position in an operating mine. She was conferred the title of "most empowered woman in mining," which Cynthia noted as a sign that "women in mining are rising to positions of influence and responsibility where they can ensure that responsible mining in the country is strictly executed."

NAC is able to provide employment opportunities to its host and neighboring communities, employing 1,487 locals in 2019, 93 of them being indigenous people. This is made possible through the Company's Impact Sourcing practice, where local hires are prioritized to provide opportunities for economically disadvantaged groups.

EMPLOYEE BREAKDOWN GRI 405-1, GRI 102-7

A. BY CONTRACT TYPE AND GENDER

Contract Type	Head Office		RTN		TMC		HMC		CMC		Total
2019											
Regular/ Probationary	21	33	620	69	562	93	184	52	190	46	**1870**
Seasonal	0	0	233	0	6	0	78	10	0	0	**327**
Project-based	0	0	231	10	5	2	0	0	0	0	**248**
TOTAL	**21**	**33**	**1084**	**79**	**573**	**95**	**262**	**62**	**190**	**46**	**2445**
2018											
Regular/ Probationary	45	42	641	63	576	88	177	46	191	46	**1915**
Seasonal	0	0	199	0	206	9	124	19	118	12	**687**
Project-based	0	0	264	28	20	0	0	0	0	0	**312**
TOTAL	**45**	**42**	**1104**	**91**	**802**	**97**	**301**	**65**	**309**	**58**	**2914**
2017											
Regular/ Probationary			598	1	574	86	138	31	173	40	**1641**
Seasonal			165	55	495	10	878	252	0	0	**1855**
Project-based			181	29	117	0	6	5	7	5	**350**
TOTAL			**944**	**85**	**1186**	**96**	**1022**	**288**	**180**	**45**	**3846**

Male Female

B. BY POSITION AND GENDER

Position	Head Office		RTN		TMC		HMC		CMC		Total
2019											
Senior Management	3	1	4	2	3	0	3	0	3	0	**19**
Managers	4	3	24	9	33	7	12	3	7	4	**106**
Supervisors	3	14	102	43	136	71	65	38	59	29	**560**
Rank and File	11	15	490	15	390	15	104	11	121	13	**1,185**
TOTAL	**21**	**33**	**620**	**69**	**562**	**93**	**184**	**52**	**190**	**46**	**1,870**
2018											
Senior Management	18	3	1	0	1	0	1	0	1	0	**25**
Managers	8	9	28	10	36	6	14	3	11	4	**129**
Supervisors	8	13	112	37	131	70	59	34	52	30	**546**
Rank and File	11	17	500	16	408	12	103	9	125	12	**1,213**
TOTAL	**45**	**42**	**641**	**63**	**576**	**88**	**177**	**46**	**189**	**46**	**1,913**

Male Female

C. BY POSITION AND AGE GROUP

Position	Head Office			RTN			TMC			HMC			CMC			Total
2019																
Senior Management	0	1	3	0	3	3	0	2	1	0	2	1	0	0	3	**19**
Middle Management	1	3	3	6	13	14	2	26	12	0	13	2	2	7	2	**106**
Supervisors	3	10	4	45	80	20	64	118	25	46	43	14	47	36	5	**560**
Rank and File	6	16	4	28	393	84	26	275	104	11	77	27	13	87	34	**1,185**
TOTAL	**10**	**30**	**14**	**79**	**489**	**121**	**92**	**421**	**142**	**57**	**135**	**44**	**62**	**130**	**44**	**1,870**

2018															
Senior Management	0	5	16	0	0	1	0	1	0	0	3	1	0	0	1	**28**
Middle Management	1	12	4	7	14	17	3	24	14	1	10	3	2	8	5	**125**
Supervisors	9	10	2	53	71	25	74	108	20	45	19	11	51	28	5	**531**
Rank and File	14	14	0	31	402	83	30	285	105	31	78	21	14	83	40	**1,231**
TOTAL	**24**	**41**	**22**	**91**	**487**	**126**	**107**	**418**	**139**	**77**	**110**	**36**	**67**	**119**	**51**	**1,915**

Below 30 years old 30 to 50 years old Over 50 years old

D. FROM LOCAL COMMUNITY GRI 202-2

Contract Type	RTN		TMC		HMC		CMC		Total
2019									
Regular	403	43	464	59	106	10	87	13	**1,185**
Probationary	2	0	3	2	0	0	3	1	**11**
Seasonal	233	0	3	0	45	10	0	0	**291**
TOTAL	**638**	**43**	**470**	**61**	**151**	**20**	**90**	**14**	**1,487**
Indigenous People and/or Vulnerable Sector	79	5	2	7	0	0	0	0	**93**
2018									
Regular	354	33	559	85	132	29	89	11	**1292**
Probationary	58	8	11	1	5	2	0	1	**86**
Seasonal	199	0	226	9	113	19	107	12	**685**
TOTAL	**611**	**41**	**796**	**95**	**250**	**50**	**196**	**24**	**2063**
Indigenous People and/or Vulnerable Sector	73	14	6	2	0	0	0	0	**95**

Male Female

EMPLOYEE TRAINING AND BENEFITS

GRI 103-1, GRI 103-2, GRI 103-3, GRI 404-2

Our high regard for our people is supported by continuous training and development opportunities combined with competitive compensation and benefits packages.

For 2019, NAC was able to provide a total of 60,489 training hours for its employees, helping boost their productivity, confidence, motivation, and morale which enabled them to perform their roles more effectively.

Training and skills development opportunities are among the key benefits that NAC offers. After conducting Training Needs Analysis, department/section heads submit their requests for training opportunities for their people, covering areas such as leadership and management, safety, environment, health, behavioral, and technical.

The Company makes sure to provide technical skills training specific to the mining industry such as Advanced Operations Management, Geocon 2019, and Environmental Planning. For its part, CMC ensures to also conduct Post Training Evaluation to measure the usefulness of specific training programs.

In 2019, CMC also had a tie-up with St. Paul University of Surigao (SPUS) to offer BS Mining Engineering as a second course at the mine site starting school year 2019-2020.

Innovating to deliver quality education, SPUS and CMC instructors will coordinate and communicate with each other throughout the course to produce topnotch engineers. The onsite classes present a huge opportunity for employees to pursue their dream of becoming mining engineers without having to leave the workplace.

TOTAL TRAINING HOURS GRI 404-1

Indicator	Head Office	RTN	TMC	HMC	CMC
2019					
Annual training expenditure (Php)	475,214	8,130,897	7,344,696	5,264,370	7,086,203
Total Training hours	**752**	**19,912**	**16,344**	**12,705**	**10,776**
Training hours (male)	440	16,232	11,448	9,712	7,248
Training hours (female)	312	3,680	4,896	2,993	3,528
Total employees trained	**32**	**418**	**324**	**175**	**183**
Male employees	15	351	251	122	124
Female employees	17	67	73	53	59
Average training hours	**23.5**	**47.6**	**50.4**	**72.6**	**58.9**
Average training hours (male)	29.3	46.3	45.6	79.6	58.5
Average training hours (female)	18.4	54.9	67.1	56.5	59.8
2018					
Annual training expenditure (Php)	3,688,695	5,050,051	10,587,937	2,786,868	5,405,957
Total Training hours	3,889	10,088	28,224	7,600	15,651
Total employees trained	87	221	766	141	121
Average training hours	44.7	45.7	36.8	53.9	129.4
2017					
Total Training Hours		14,240	19,928	11,754	22,171
Total Employees Trained		611	540	590	221
Average training hours		23.3	36.9	19.9	100.3

AVERAGE TRAINING HOURS BY POSITION GRI 404-1

Position	Head Office	RTN	TMC	HMC	CMC
2019					
Senior Management	16.0	80.5	104.6	10.7	8.0
Middle Management	18.0	51.3	100.9	97.6	76.7
Supervisors	29.3	65.7	60.1	117.7	74.9
Rank and File	8.0	36.7	22.9	29.1	133.6
2018					
Senior Management	41.4	32.0	8.0	50.0	67.0
Middle Management	41.1	29.3	121.2	73.6	107.1
Supervisors	27.7	26.6	73.7	64.4	108.0
Rank and File	28.7	25.8	15.9	28.2	193.7

KEY TRAININGS

Head Office		RTN		TMC	
Topic	Attendees	Topic	Attendees	Topic	Attendees
Corporate Governance Seminar	4	Data Privacy Act Awareness	14	Safety Audit Training	17
People Dynamics Online Assessment	1	Resiliency Training	41	Office Safety Seminar	14
Philippine Financial Reporting Standards (PFRS) 16 Workshop	5	Learning Design and Evaluation Training	17	Loss Control Management (LCM)	20
Emotional Intelligence Training	23	Effective Implementation of Document Information System	1	Permit to Work	22
Philippine Institute of Certified Public Accountants (PICPA) Seminar	2	Training Workshop on the Utilization of Qualitative & Quantitative Research Results	1	ISO 45001:2018 Legal Requirements and Updates	28
Leadership	3	Labor Law 101	40	Behavioral-Based Safety Training	38
Master of Business Administration (MBA) Program	1	Situational Leadership II	17	Management Refresher Course	35
Common Errors	1	Challenge of Leadership	20	Resiliency	39

of Accountant				Training	
Saville Leadership Assessment	2	Organizational Development Interventions	3		
		Workplace Cooperation and Partnership Enhancement	7		
		Mental Health Awareness and Stress Management	5		
		Trainer's Methodology Training	12		
		Training the Trainer	12		

HMC		CMC	
Topic	Attendees	Topic	Attendees
GeoCon 2019	4	Environmental Planning Training	11
Advocacy Forum on the SDGs & how business contribute on achieving them	2	Basic Supervisory and Leadership Training (Supervisors)	27
Technical writing workshop	10	Pollution Control Officer (PCO) Training	2
Managing workplace conflict through labor management corp.	2	Enhancing Emotional Intelligence and Work Ethics in the Workplace	3
MGB ROXIII Gender and Development (GAD) Summit	3	Leadership Trainings (Managers)	14
Creative Writing Workshop (Re-Echo)	17		
Advance Operations Management	3		
Situational Leadership	4		

Of course, employee development does not stop at the provision of training. Developing our people also includes performance evaluations from direct managers so they can commend excellent work as well as provide interventions for those who need improvement.

Employee performance is tracked using an established Performance Evaluation and Development Sheet with key performance indicators. Employees who were able to deliver excellent service throughout the year are recognized during the Service Awards program and are given promotions, bonuses and/or salary increases.

These are among the reasons for the Company's low attrition rate, along with competitive compensation and benefits packages that are appreciated by our people. For instance, TMC's compensation and benefits packages are competitive in the Caraga region. The average compensation and benefits for a regular rank-and-file employee is three times more than the prevailing daily minimum wage rate in the region.

AVAILMENT OF BENEFITS GRI 401-2

List of Benefits	Head Office		RTN		TMC		HMC		CMC	
SSS	100%	100%	100%	100%	100%	100%	3%	1%	100%	100%
PhilHealth	100%	100%	100%	100%	100%	100%	(No data)	(No data)	100%	100%
Pag-ibig	100%	100%	100%	100%	100%	100%	(No data)	(No data)	100%	100%
Vacation Leaves	100%	100%	100%	100%	98%	100%	100%	100%	100%	100%
Sick Leaves	100%	100%	60%	7%	89%	88%	80%	80%	100%	100%
Medical benefits (Aside from PhilHealth)	100%	100%	100%	100%	63%	1%	25%	30%	100%	100%
Housing assistance (Aside from Pag-ibig)	N/A	N/A	18%	2%	N/A	N/A	N/A	N/A	N/A	N/A
Retirement fund (Aside from SSS)	5%	N/A	3%	N/A	2%	1%	5%	12%	3%	N/A
Further education support	N/A	N/A	5%	1%	N/A	N/A	N/A	N/A	6%	N/A
Telecommuting	10%	9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Free Room Accommodation	N/A	N/A	72%	8%	14%	N/A	N/A	N/A	100%	100%
Birthday Leave (BL)	N/A	N/A	N/A	N/A	100%	100%	N/A	N/A	100%	100%
Medicine Allowance	100%	100%	N/A	N/A	100%	100%	N/A	N/A	100%	100%
Annual Physical Exam	100%	100%	N/A	N/A	100%	100%	N/A	N/A	100%	100%
Rice Subsidy	100%	100%	N/A	N/A	100%	100%	N/A	N/A	100%	100%
Toiletries	N/A	N/A	N/A	N/A	14%	0%	N/A	N/A	36%	72%
Lighting Allowance	N/A	N/A	N/A	N/A	100%	100%	N/A	N/A	64%	28%
Working Uniform	100%	100%	N/A	N/A	100%	100%	N/A	N/A	100%	100%
Life Insurance	100%	100%	N/A	N/A	100%	100%	N/A	N/A	100%	100%

Professional Tax Renewal (PRC)	N/A	N/A	N/A	N/A	13%	5%	N/A	N/A	26%	41%
Free Meals/Meal Allowance	100%	100%	N/A	N/A	31%	85%	N/A	N/A	36%	72%
Free Laundry	N/A	N/A	N/A	N/A	31%	N/A	N/A	N/A	36%	72%

Male Female

PARENTAL LEAVES GRI 401-3

List of Benefits	Head Office		RTN		TMC		HMC		CMC	
2019										
Total employees who took parental leave	2	0	18	5	28	4	2	2	7	0
Number of employees who returned to work after parental leave	2	0	18	5	28	4	2	2	7	0
Return to work rate (%)	100%	N/A	100%	100%	100%	100%	100%	100%	100%	N/A
Number still employed one year after their return from parental leave	2	0	18	5	28	4	2	2	7	0
Retention rate (%)	100%	N/A	100%	100%	100%	100%	100%	100%	100%	N/A
2018										
Total employees who took parental leave	0	5	3	48	9	28	1	3	4	45
Number of employees who returned to work after parental leave	0	5	3	48	9	28	1	3	4	45
Return to work rate (%)	N/A	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number still employed one year after their return from parental leave	0	5	3	48	9	28	1	3	4	45
Retention rate (%)	N/A	100%	100%	100%	100%	100%	100%	100%	100%	100%

Male Female

HIRING STATISTICS GRI 401-1

Indicator	Head Office		RTN		TMC		HMC		CMC	
New Hires	0	0	7	7	4	1	10	5	15	2
Attritions/Turnover	1	0	25	1	5	0	14	3	6	2
Attrition Rate	3.0%	0.0%	4.0%	1.5%	0.9%	0.0%	7.8%	6.1%	3.2%	4.4%
Salary of lowest paid employee	538	705	320	320	320	385	320	320	400	336
Minimum wage per location	537	537	320	320	320	320	320	320	320	320
Ratio of lowest paid employee against minimum wage	1:1	4:3	1:1	1:1	1:1	6:5	1:1	1:1	5:4	1:1

Male Female

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

GRI 103-1, GRI 103-2, GRI 103-3

NAC provides intangible benefits such as a strong and open corporate culture that responsively supports Freedom of Association and Collective Bargaining. NAC recognizes its employees' unions as important partners in business. It enhances and sustains its relationship with the unions through mutual trust and respect, teamwork, proactive policies, openness in terms of information sharing, discussions, consultations, and negotiations.

The unions are always included in working committees for programs and activities. They are also involved in formulating strategies to handle company issues. RTN, for example, was able to implement the Anti-Bullying act as a result of their consultations with its Unions.

TMC has one union, the Taganito Labor Union, which represents regular rank-and-file employees. TMC acknowledges the union's legitimacy and value and considers the group an important partner in business. Through the Labor Management Committee (LMC), the relationship between labor and management is enhanced and sustained through mutual trust and respect, teamwork, proactive policies, and openness in terms of information sharing, discussion, consultation and negotiations.

HMC also has one union called Hinatuan Mining Labor Union (HIMLU) which is affiliated with Kilusang Mayo Uno (KMU). HMC management and HIMLU representatives hold a monthly Labor Management Conference every third Friday.

Meanwhile, CMC's existing Collective Bargaining Agreement also provides for a monthly Labor Management Conference every third Friday on concerns that are not related to wages/salaries and benefits. Respective department heads are invited to attend these conferences. The union is allowed to conduct Executive Committee Meetings whenever necessary to allow the officers and union leaders to discuss pressing matters.

COLLECTIVE BARGAINING AGREEMENT GRI 102-41

Element	RTN	TMC	HMC	CMC
2019				
Number of employees under CBA	574	399	113	91
Percent of employees under CBA	83%	61%	48%	39%
Number of consultations conducted with employees concerning employee-related policies	11	N/A	12	10
2018				
Number of employees under CBA	543	419	112	98
Percent of employees under CBA	77%	63%	50%	26%
2017				
Number of employees under CBA	356	201	59	52
Percent of employees under CBA	73%	48%	54%	44%

CREATING A SAFE AND HEALTHY WORKPLACE

GRI 103-1, GRI 103-2, GRI 103-3, GRI 403-1, GRI 403-2, GRI 403-3, GRI 403-4

SDG HIGHLIGHTS

SDG 8	Php 70.7 million Expenditure on Health and Safety Programs
SDG 8	21,761,967 Total Man Hours
SDG 8	43,731,688 Safe Man Hours to-date
SDG 3	14 IECs Conducted on Health

NAC is safety-conscious and alert to potential dangers. Because keeping our people safe is our top priority, the Company has ensured that everyone has the proper knowledge and training, provided with appropriate Personal Protective Equipment (PPE), and supported by policies, standards, and processes.

The Company implements a comprehensive safety program designed to minimize risks in the work environment and ensure compliance with occupational health and safety standards:

- Use of protective equipment and safety devices
- Provision of first aid and emergency equipment
- Regular safety inspections
- Regular safety briefings and emergency preparedness training and drills
- Safety orientation for new employees
- Comprehensive investigation of incidents and near misses to understand root causes and to implement corrective measures
- Monitoring of lost time injuries, medically treated injuries, minor injuries and non-injury incidents

In 2019, there were four (4) work-related fatalities which caused the organization to take a serious review and a thorough evaluation of its processes to address the weaknesses revealed by the investigations of these incidents. A general safety stand down of mining operations was implemented during the investigations until all the hazards were corrected and recommendations were complied with.

NAC also established a team to audit its night shift operations to ensure that all necessary controls are in place, such as installation of additional tower lights for night shift operations, stricter evaluation of hauling contractors and revision of necessary procedures in dumping and spotting in stockpile areas to include the use of baton, whistle and lamps to ensure that personnel are visible during these activities at night.

And to avoid such incidents in the future, the Central Safety and Health Committee (CSHC) of all mine sites have stepped up its drive to ensure the consistent execution of the safety programs at all times and in every situation.

The CSHC is composed of the Resident Mine Manager, at least one safety engineer, and representatives across Divisions, Groups, Departments, and Sections, as well as from the union and the contractors. The CSHC implements standard processes and constantly monitors issues and employee concerns relating to health and safety. Safety Officers conduct regular inspections to ensure compliance to the Company's safety rules and regulations.

The Company invests in proper safety equipment for employees and visitors alike. Standard PPE include skull guards, eye goggles/spectacles, dust/chemical respirators/masks, earmuffs, hand gloves, high visibility vests, rain boots, raincoats, and safety shoes.

Seeking to ensure that employees have a voice in these Health and Safety Committees, employees are proactively sought for inputs and suggestions. In these Committees, RTN has 45 employee representatives while TMC has 55, HMC has 28, and CMC has 35.

INJURIES AND ACCIDENTS GRI 403-9, GRI 403-10

Element	RTN	TMC	HMC	CMC
2019				
No. of employees in health & safety committee	45	55	28	35
Total Man Hours	5,836,303	7,214,578	4,429,835	4,281,251
Safe Man Hours (to-date)*	2,666,781	2,932,982	27,198,119	10,933,806
Lost time accidents (LTA)	2	2	0	0
Number of occupational injuries/illnesses	5	6	9	1
Incidence Rate	1.71	7.07	9.93	7.01
Severity Rate	0.34	2, 495	0	0
Lost days	6,018	18,000	0	0
Fatalities	1	3	0	0
Work-related fatalities	1	3	0	0

Element	RTN	TMC	HMC	CMC
No. of safety drills	8	4	4	4
2018				
Total Man Hours	7,576,463	7,945,192	4,847,980	4,008,262
Lost time accidents	0	3	0	0
Number of occupational injuries/illnesses	8	8	0	65
Incidence Rate	1.58	1.41	17.33	16.21
Severity Rate	0	155.62	0	0
Lost days	0	6,182	0	0
Fatalities	0	1	0	0
Work-related fatalities	0	0	0	0
2017				
Total Man Hours	7,876,242	6,961,557	4,831,752	2,692,553
Lost time accidents	0	0	0	1
Number of occupational injuries/illnesses				
Incidence Rate	1.78	5.31	0.62	15.23
Severity Rate	0	0	0	15.23
Lost days	0	0	0	41
Fatalities	0	0	0	0

LIST OF TRAINING PROGRAMS ON HEALTH AND SAFETY GRI 403-5

RTN		TMC	
Topics	**Attendees**	**Topics**	**Attendees**
Defensive Driving Course	1,440	Safety and Health Orientation	3,302
IEC on Blood Donation and HIV/AIDS	174	Standard Operating Procedure (SOP) Presentation per Department/ Section	65
IEC on Managing a Healthy Mining Night Shift Lifestyle	141	Basic Occupational Safety and Health (BOSH)	64
IEC on Musculoskeletal Disorders	82	Loss Control Management (LCM)	54
Ergonomics for Office Workers & Drivers	75	Behavioral-Based Safety Enhancement Training	47
IEC on Common Skin Problem of Women/ IEC on Sexual Harassment and Abuse	64	Supervisory Safety Enhancement Training	46
Kidney Stone	57	Standard First Aid/Basic Life Support (BLS) - CPR & Automated External Defibrillators (AED)	38
Company Fire Brigade & Fire Truck Operation	53	ISO 45001:2018 Awareness Training	36
IEC on Flu Vaccination	50	Equipment Operation Training	35
IEC Proactive vs. Reactive/Alcohol in the	50	Oil Spill Training at Sea	35

RTN		TMC	
Topics	Attendees	Topics	Attendees
Workplace			
IEC on Family Planning/Gandang Mina	48	Occupational Safety and Health (OSH) Law Orientation	31
IEC on Oral Health	43	ISO 45001:2018 Hazard Identification, Risk Assessment and Control (HIARO) Training	30
Manual Lifting	41	Permit to Work System Training	28
Malaria	38	ISO 45001:2018 Legal Requirements and Updates Training	28
Viral Hepatitis at Work	36	Electrical Safety w/ Lockout Tagout (LOTO)	23
Behavioral-Based Safety Training	29	Permit to Work System	23
Pulmonary Diseases Related to Smoking	28	Safety Audit	21
Health: Pneumonia	23	Lead Document Controller Course	20
BOSH Training	22	Ambulance Operation	20
Standard First Aid & BLS-CPR w/ AED for Professional Rescuers	22	Training the Trainers	17
Mental Health Awareness and Stress Management	22	Defensive Driving Seminar	15
Health: Dehydration	20	Work Environment Management	2
Safety Management System	15	Work Relatedness Disease Training	1
Good Housekeeping	10	Construction Occupational Safety and Health (COSH)	1
Radiation Safety Officer Training	8		

HMC		CMC	
Topics	Attendees	Topics	Attendees
BOSH	55	BOSH	80
LCM	55	COSH	3
Behavioral Based Safety	25	First Aid	38
Fire Fighting	12	LCM	19
Standard First Aid/CPR with AED	24	BOSCH for Nurses	3
Basic Oil Spill Response Training	12	Fire Fighting	15
Safety Auditing	25	OSH Training	3
Defensive Driving	135	Radiation & Health and Safety	1
RA 11058 Orientation	3	Safety Driving Seminar	133
OSH Law Orientation	3	Construction Occupational Health and Safety	3
Fire Safety and Basic Fire Fighting Technique	21	Marine Occupational Safety and Health	6

CARING FOR OUR ENVIRONMENT

SDG HIGHLIGHTS

SDG 13	Php 509 Million Investment on EPEP
SDG 14	Php 137 Million Budget for Water Protection Programs
SDG 15	420,684 Seedlings Planted
SDG 6	Water Quality Maintained within Standards at all Discharge Points throughout the Year
SDG 7	6,537 MWh Electricity Consumed
SDG 7	42.2 Million Liters of Fuel Consumed
SDG 12	240 Tons Recyclable Waste Collected
SDG 12	290,190 Liters Used Oil Treated by Treatment Facility
SDG 12	200,568 kg Hazardous Waste Treated by Treatment Facility
SDG 12	109,571 kg Residual Waste Sent to Landfill
SDG 13	114,909 TCO_2 eq GHG emissions monitored
SDG 14	3 Esteros Adopted through Adopt-an-Estero Program
SDG 14	2 Coral Nurseries Installed

All NAC operating mines have fully-funded Environmental Protection and Enhancement Programs (EPEPs) – comprehensive and strategic environmental management plans that cover management objectives, criteria and commitments pertaining to environmental protection and rehabilitation.

Each mine's Annual EPEP contains programs and initiatives for Land Protection, Air Protection, Water Protection, and Environmental Monitoring. Activities include rehabilitation of disturbed areas, reforestation, construction and maintenance of environmental facilities, solid waste management, hazardous waste management, air quality monitoring, and preservation of downstream water quality.

TOTAL EPEP SPENDING (IN MILLION PHP)

Year	RTN	TMC	HMC	CMC	Total
2019	81	216	157	55	**509**
2018	103	228	175	46	**552**
2017	109	193	145	25	**472**

BREAKDOWN OF EPEP SPENDING (IN MILLION PHP)

Categories	RTN	TMC	HMC	CMC	Total
Land Protection	22	63	114	24	**222**
Air Protection	24	54	12	15	**105**
Water Protection	19	89	24	6	**138**
Environmental Monitoring	12	3	2	1	**18**
Other Initiatives	4	7	5	9	**26**
TOTAL EPEP	81	216	157	55	**509**

There are Multipartite Monitoring Teams tasked to review these environmental programs on a quarterly basis. An annual accomplishment report based on the objectives outlined in the EPEP is prepared and submitted by the Mine Environment Protection and Enhancement Officer.

In 2019, aside from continuing its existing environmental programs, the mines also proactively pursued innovative collaborations and explored solutions to address and mitigate potential environmental impacts. For instance, CMC forged a partnership with Environmental Management Bureau (EMB) Caraga to adopt three important water bodies around the mine site, namely Maraguing Creek, Pinagbahan Creek, and Boa River, with the end objective of restoring these bodies of water to their pristine state.

Meanwhile, RTN has integrated into its operation a bioreactor technology developed by the Department of Science and Technology (DOST) that converts biodegradable wastes into organic fertilizers and soil conditioners. RTN adopted this innovative technology through DOST's technology transfer program. The bioreactor developed by DOST's Industrial Technology Development Institute (ITDI) promotes efficient solid waste management practices in the communities in compliance with Republic Act (RA) 9003 or the "Ecological Solid Waste Management Act of 2000". According to DOST, RTN is the first mining company to use the fertilizer and soil conditioner from this bioreactor for a mine rehabilitation program.

Another innovative project was HMC's installation of two coral nurseries in the waters within the Hinatuan site. The installation of the coral nurseries was in partnership with Caraga State University (CSU) Center for Research in Environmental Management and Eco-Governance (CRÈME). A total of 271 coral fragments were installed in the coral nurseries of HMC. Regular monitoring of the project showed that zero mortalities with all 271 installed coral fragments surviving. Moreover, in the span of one and a half months, the corals which were reared in the coral nurseries have already branched out, an indication of health.

LAND PROTECTION

GRI 103-1, GRI 103-2, GRI 103-3

As part of the mining process, the removal of natural vegetation is necessary for the eventual extraction to commence. The Company recognizes these areas as natural habitats and homes to various flora and fauna species, some of which are even included in the IUCN Red List and national conservation list. The Company therefore ensures that proper management and rehabilitation measures are conducted in order to ensure the survival of diverse species in the area.

NAC requires absolute compliance from all its mine sites in the following mitigating measures:

- Proper handling of cleared vegetation including topsoil management
- Acquisition of Special Tree Cutting and Earth-balling Permit (STCEP) for earth-balling projects and strict compliance with the requirements
- Progressive rehabilitation on mined-out areas and reforestation with indigenous species to preserve the natural floral biodiversity of the affected sites

HMC conducts environmental baseline data gathering and periodic biodiversity assessment as it integrates its biodiversity management with the government's Mining Forest and National

Greening Program. Moreover, biodiversity management is a major component of its Annual EPEP under reforestation and research and development projects in collaboration with prestigious academic institutions. For example, HMC ‘s installation of two coral nurseries where 271 coral fragments were introduced in partnership with the Caraga State University (CSU) Center for Research Environmental Management and Eco-Governance. Plus, HMC established “Zoorigao”, an infrastructure that consists of an orchidarium, pavilion, and a butterfly garden, which serves as a safe haven for rescued wild birds, animals, and avi-faunal species of the area.

Meanwhile, RTN employs progressive rehabilitation and uses native planting materials for such programs. Aside from regular flora and fauna monitoring, it has also partnered with Crocodylus Porosus Philippines Inc. on information and education campaigns (IEC) for crocodile conservation and awareness while it supports the conservation and protection of the Ursula Island Wildlife Sanctuary. At the same time, it also actively contributes to the country’s National Greening Program (NGP) through the establishment of more than 650 hectares of tree plantations including mangroves.

For its part, TMC continues the progressive rehabilitation of mined out areas and reforestation of areas surrounding the mining operation and maintains a biodiversity area where different tree species are earth-balled and propagated. It conducts year-round monitoring of flora and fauna within the MPSA to serve as a baseline for additional measures whenever deemed necessary. As a special project, it conducted deployment of buoys to delineate the Malingin Islet marine sanctuary.

CMC’s initiatives, on the other hand, included establishing a buffer zone and forest conservation area within its MPSA Area to facilitate the transfer of habitat of the displaced wildlife and maintain the water source. Rehabilitation of mined out areas were also conscientiously conducted so that the forest and the wildlife will return. An ISO 14001:2015 certified organization, CMC’s biodiversity programs features biodiversity assessment and biodiversity conservation projects.

LAND PROTECTION AND BIODIVERSITY MANAGEMENT GRI 304-1, GRI 304-3

Element	RTN	TMC	HMC	CMC	Total
2019					
Total Area Disturbed (ha)	990	4,863	774	697	**7,324**
Total Area Used for Other Purposes (ha)	750	486	0	109	**1,345**
Total Area Rehabilitated (ha)	33	46	70	11	**160**
Total Area Reforested (ha)	4	22	71	41	**138**
Area of land used for extractive use (ha)	51	145	19	59	**274**
% of land requiring biodiversity management plans	3%	1%	27%	34%	

Element	RTN	TMC	HMC	CMC	Total
Operational sites owned, leased, managed in, or adjacent to, protected area and areas of high biodiversity value outside protected areas	None	None	None	5	**5**
Habitats protected or restored (ha)	650	None	206	379	**1,235**
2018					
Total Area Disturbed (ha)	990	4,863	774	697	**7,324**
Total Area Used for Other Purposes (ha)	490	1,188	253	266	**2,197**
Total Area Rehabilitated (ha)	155	191	184	92	**622**
Total Area Reforested (ha)	609	641	35	40	**1,325**
Area of land used for extractive use (ha)	142	103	57	42	**344**
% of land requiring biodiversity management plans	24%	17%	8%	13%	
2017					
Total Area Disturbed (ha)	91	272	258	72	**693**
Total Area Used for Other Purposes (ha)	189	312	75	93	**669**
Total Area Rehabilitated/Reforested (ha)	123	204	96	79	**502**

IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES WITH HABITATS IN AREAS AFFECTED BY OPERATIONS GRI 304-4

RTN	TMC	HMC	CMC
None	**Flora Red List:** *Anisoptera thurifera, Hopea foxworthyi, Shorea astylosa, Cinnamomum mercadoi, Xanthostemon verdugonianus, Nepenthes mindanaoensis, Nepenthes surigaoensi* **Flora conservation list:** *Dischidia purpurea, Calophyllum cucullatum, Calophyllum pentapetalum var.*	**Flora Endangered Tree Species:** *Camptostemon philippinense, Cycas circinalis, Diospyrus ebenoides* & *Diospyros philippinensis* **Vulnerable Tree Species:** *Xanthostemon verdugonianus,* Macaranga bicolor, *Pterocarpus indicus* **Other Species:** *Leptospermum amboinense , Alstonia parviflora,Tristaniopsis micrantha, Ormosia*	**Flora Trees:** Almaciga (*Agathis philippinensis*), Mountain Agoho (*Gymnostoma rumphianum*), Yakal-yamban (*Shorea falciferoides*), Kalingag (*Cinnamomum mercadoi*), Yakal (*Shorea astylosa*), Balete (*Kingiodendron alternifolium*), Mangkono (*Xanthostemon verdugonianus*),

RTN	TMC	HMC	CMC
	cumingii, Anisoptera thurifera, Hopea malibato, Shorea astylosa, Elaeocarpus argenteus, Vaccinium gitingense, Teijsmanniodendron ahernianum, Cinnamomum mercadoi, Barringtonia pterita, Trichospermum discolor, Memecylon oligophlebium, Ficus pseudopalma, Rhodomyrtus surigaoensis, Syzygium antisepticum, Tristaniopsis micrantha, Xanthostemon verdugonianus, Nepenthes mindanaoensis, Nepenthes surigaoensis, Brackenridgea fascicularis ssp. mindanaensis, Sararanga philippinensis, Ternstroemia gitingensis, Diplospora tinagoensis, Gardenia barnesii, Eurycoma longifolia ssp. Eglandulosa **Avifauna (least concern)**: Yellow-vented bulbul (*Pycnonotus goiavier*), White-collared Kingfisher, Olive-backed Sunbird, Asian glossy starling male and female, Chestnut Munia male and female, Zebra Dove, Rufous-bellied Eagle, Paddyfield Pipit, Large-billed Crows, Pied bushchat, Barred buttonquail, Little-ringed Plover, Brahminy Kite **Mammals:** Oriental Black Rat, Common Rousette, Philippine Warty Pig **Amphibian:** South American Toad, Asian-painted Frog,	*calavensis, Commersonia bartramia, Gymnostoma rumphianum , Pandanus tectorius , Dracaena angustifolia, Buchanania arborescens, Orania decipiens , Syzygium brevistylum , Leucosyke capitellata , Artocarpus multifidus, Exocarpus latifolius, Carallia brachiata, Cratoxylum formosum, Morinda citrifolia , Heritiera littoralis, Rhizophora apiculata, Xylocarpus granatum, Orania decipiens, Polyscias nodosa, Macaranga tanarius, Calamus merrillii, Leucosyke capitellata, Alstonia parviflora, Avicenia officinales , Annona muricata, Barringtonia asiatica, Bauhinia integrifolia, Cerbera manghas, Dischidia major, Spathoglottis tomentosa, Tacca leontopetaloides, Nepenthes allot* **Birds (least concern):** Braminy kite(*Haliastur indus*), White-Bellied Sea Eagle (*Haliaeetus leucogaster*), White collared kingfisher(*Todiramphus chloris*), Pygmy Swiflet (*Collocalia troglodytes*), Glossy Swiflet (*Collocalia esculenta*), White breasted wood swallow (*Artamus leucorynchus*), Pied thriller(*Lalage nigra*), Large billed crow(*Corvus macrorhynchos*), Littled Ringed Plover (*Charadrius dubius*), Bright-Capped cisticola (*Cisticola exilis*), Emerald Dove (*Chalcophaps indica*), Zebra Dove (*Geopelia striata*), Philippine Cuckoo-Dove (*Macropygia tenuirostris*), White eared brown dove (*Phapitreron*	Tega/Mapilig (*Xanthostemon bracteatus*). **Palms:** Kaliso (*Areca caliso*), Pandan-dagat (*Pandanus dinagatensis*) **Shrubs:** Linatog (*Eurycoma longifolia*) **Climbers:** Pitcher plant (*Nepenthes belii*), (*Nepenthes mindanaoensis*), Sandaoua (*Nepenthes truncata*) **Herbs:** Lady slipper orchid (*Paphiopedilum ciliolare*), Fire orchid (*Renanthena matutina*) **Fauna Birds:** Mindano tarictic hornbill (*Penelopides affinis*), Visayan flowerpecker (*Dicaeum haematostictum*) **Reptiles:** Philippine sailfin lizard (*Hydrosaurus pustulatus*) **Amphibians:** Mindanao fanged frog (*Limnonectes magnus*)

RTN	TMC	HMC	CMC
	Common Tree Frog, Philippine Sailfin Lizard, Tokay Gecko, Common House Gecko, Reticulated Python, Common Ground Skink, Monitor Lizard	*leucotis*), Philippine Cauca (*Centropus viridis*), Orange bellied flowerpecker (*Dicaeum trigonostigma*), Red-keeled Flowerpecker (*Dicaeum australe*), Tricoloured Munia (*Lonchura malacca*), Pacific Swallow (*Hirundo tahitica*), Brown shrike(*Lanius cristatus*), Blue tailed bee eater(*Merops virides*), Richad's pipits(*Anthus richardi*), Mangrove Blue Flycather (*Cyornis rufigastra*), Pied Bushchat (*Saxicola caprata*), Olive backed sunbird (*Cinnyris jugularis*), Purple throated sunbird (*Leptocoma sperata*), Black naped oriole (*Oriolus chinensis*), Yellow vented bulbul (*Pycnonotus goiavier*), Philippine bulbul (*Hypsipetes philippinus*), Yellowish bulbul (*Hypsipetes everetti*), Pied fantail (*Rhipidura javanica*), Asian Glossy Starling (*Aplonis panayensis*), Blue rock thrush (*Monticola solitarius*), Eurasian Tree Sparrow (*Passer montanus*) **Mammals (least concern):** Lesser short-nosed fruit bat (*Cynopterus brachyotis*), Large Mindanao Forest Rat (*Bullimus bagobus*) **Reptiles (vulnerable):** Philippine sailfin lizard (*Hydrosaurus postulatus*) **Reptiles (least concern):** Monitor lizard (*Varanus salvator*) **Amphibians (near threatened)**: Giant Philippine Frog (*Limnonectes magnus*) **Amphibians Least Concern**: Asian brackish frog (*Fergervaria cancrevora*)	

WATER USE AND DISCHARGE

GRI 103-1, GRI 103-2, GRI 103-3, GRI 303-1, GRI 303-2

NAC deeply appreciates that water is an essential resource for the industry and for the communities where it does business. NAC and its mine sites, therefore, ensure that they actively do their share in their day-to-day operations.

Each mine site has an established water management plan in effect, which are supplemented by several policies and practices on water conservation as well.

For instance, 60% of wastewater coming from HMC's water purification station were utilized for laundry and comfort room use while 40% were reserved for mine site consumption. It also conducts periodic monitoring of water sources to ensure the sustainable supply of water.

Meanwhile, RTN's water consumption reduction program includes reuse of water from recycling ponds for road watering and product washing.

On the other hand, TMC uses the strategy of adding pressure to increase impact with lesser volume of water. It also established a water treatment facility that generates potable water as well as implemented redirection of water from settling ponds to Hubasan tank to be utilized in haul road spraying for dust suppression.

For its part, CMC utilizes communication tools such as signages installed in key areas to encourage people to make use of effective water conservation practices. It also maximizes the clear water from settling ponds, using them to water the road for dust suppression and for watering the rehabilitation areas as well as the plant nurseries.

WATER USE AND DISCHARGE GRI 303-3, GRI 303-4

Element	RTN		TMC		HMC		CMC		Total (cu. m.)
	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	
2019									
Extraction	Water wells	957,741	Hubasan Creek	80,354	Filtered Springs	28,382	Baliwan Marsh Land	42,000	**1,276,824**
	Tagpisa Pond	79,675			Kaskag Creek	58,672	Maraguing Watershed	30,000	
Discharge	Lower Kinurong	506,140	Taganito River	0	Hinatuan Passage	159,900	CMC Dinagat	24,365	**2,223,979**
	Lower Togpon	1,437,865			Banug Strait	95,709			
Silt Collected (WMT)		57,888		3,499		109,451		72,468	**243,306**
2018									
Extraction	Water wells	783,947	Hubasan Creek	214,604	Filtered Springs	10,065	Baliwan Marsh Land	0	**1,190,546**

Element	RTN		TMC		HMC		CMC		Total (cu. m.)
	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	Water Body	Volume (cu. m.)	
	Tagpisa Pond	92,390			Kaskag Creek	54,185	Maraguing Watershed	35,355	
Discharge	Lower Kinurong	368,784	Taganito River	29,648	Hinatulan Passage	67,152	CMC Dinagat	31,387	**1,155,964**
	Lower Togpon	648,004			Banug Street	10,989			
Silt Collected (WMT)		23,904		523,956		106,190		31,387	**685,437**
2017									
Extraction	Water wells	777,926	Hubasan Creek	74,194	Filtered Springs	77,993	Baliwan Marshland	58,172	**1,118,174**
	Tagpisa Pond	129,889			Kaskag Creek		Maraguing Island		
Discharge	Lower Kinurong	406,013	Taganito River	-	Hinatuan Passage	6,918	CMC Dinagat	43,572	**1,167,533**
	Lower Togpon	711,030							
Silt Collected (WMT)		21,972		574,714		136,011		41,633	**774,330**

As industries such as mining require the use and discharge of large amounts of water in its operations, every company is aware of the importance of monitoring and mitigating impacts of effluents as best they are able.

The Company identifies facilities and activities that pose a threat to groundwater using its Environmental Management System (EMS). It also employs constant monitoring and proper measures. For instance, the landfill is layered with a high definition polyethylene to provide impermeability and containment of contaminated water.

Most of the Company's wastewater undergo filtration through silt curtains and silt containment ponds to be reused during water spraying for dust suppression. Some are also recycled for product washing. As such, with 2,223,979 cubic meters of wastewater discharged, the majority of that had been recycled and reused for various purposes, from core mining operations to domestic uses.

Some of the techniques used under the EMS are:

- Monthly and quarterly physical and chemical monitoring of Total Suspended Solids (TSS)
- Establishment of activated carbon gabions
- Regular dredging of sumps and ponds
- Planting of slopes to reduce exposed areas
- Vetiver grass planting in ponds for phytoremediation
- Using oil-water separator to prevent contamination

- Covering of ore stockpiles to minimize silted water
- Generation from stockpile areas
- In-house water sampling
- Emergency response procedures for accidental releases of contaminated water
- Construction of a drainage system that directs water/leakages to designated areas of treatment

In particular, TMC conducts water sampling in the Hayanggabon river and monitors Baoy River during heavy rains. Silts in the Taganito river delta are dredged and transferred to the silt depository.

And of course, there is CMC's notable partnership with the Environmental Management Bureau (EMB) in the adoption and restoration of three important water bodies around the mine site, namely the Maraguing Creek, Pinagbahan Creek, and Boa River.

CMC facilities also have sewage treatment plants (STP). At the same time, grease traps are used in kitchen areas, oil and water separators are used at the MotorPool area, and settling ponds have been established to control silt run-off and improve water quality at discharge point.

NAC ensures strict monitoring on all environmental facilities are done regularly to ensure the effectiveness of structures in containing and preventing soil and underground contamination.

AIR PROTECTION

GRI 103-1, GRI 103-2, GRI 103-3

Caring for air quality is caring for our people and our communities. That is why NAC developed and presently implements an air quality management program to ensure that the air quality in its mine sites is in a healthy condition.

The Company conducts regular emission testing and measurement of dust emissions. It ensures that it has permits for all pollutant-emitting devices to assure the communities and regulatory bodies that its emissions are well within the regulatory limits of DENR.

RTN in particular performs stack emission sampling of new air pollutant sources. Meanwhile, TMC deploys water lorries to designated strategic areas to address dust excesses. And CMC conducts annual GHG and carbon sink assessment. It is currently transitioning and is phasing out equipment, materials and supplies emitting oxygen depleting substances (ODS).

AIR EMISSIONS GRI 305-1, GRI 305-2, GRI 305-3, GRI 305-7

Pollutant	RTN	TMC	HMC	CMC	Total
2019					
GHG (Scope 1) TCO_2 e	27,068	46,538	9,053	23,223	105,883
GHG (Scope 2) TCO_2 e	N/A	42	55	8	105
GHG (Scope 3) TCO_2 e	N/A	47	8,723	152	8,922
Ozone-depleting substances (ODS) (kg)	N/A	N/A	27	N/A	27
Nitrous Oxides (NOx) (mg/Ncm)	N/A	694	N/A	3	N/A

Pollutant	RTN	TMC	HMC	CMC	Total
Sulfur Oxides (SOx) (mg/Ncm)	N/A	N/A	N/A	28	N/A
Particulate matter (PM) (ug/Ncm)	11	75	11	5	N/A
2018					
GHG Overall TCO_2 e	30,264	45,042	19,595	19,845	114,746
2017					
GHG Overall TCO_2 e	32,008	39,797	14,965	15,310	102,080

ENERGY CONSUMPTION

GRI 103-1, GRI 103-2, GRI 103-3

NAC is committed to finding the most efficient use of its resources, crafting practical resource management plans and implementing them with care. With this approach, the Company was able to reduce its energy consumption by 865,771 liters of diesel fuel and 422 MWh of electricity.

ENERGY CONSUMPTION GRI 302-1

Energy Use & Source	RTN	TMC	HMC	CMC	Total
2019					
Genset (Ltrs)	115,592	179,004	191,734	525,035	**1,011,365**
Energy Generated by Genset (MWh)	178	430	671	1,304	**2,583**
Vehicles - Diesel (Ltrs)	9,480,511	16,712,150	6,011,503	8,850,506	**41,054,670**
Vehicles - Gasoline (Ltrs)	62,978	31,126	74,302	12,582	**180,988**
Electricity from Local Supply (MWh)	2,218	1,736	-	-	**3,954**
LPG (GJ)	-	57	792	2,500	**3,292**
2018					
Genset (Ltrs)	110,180	341,015	312,182	398,724	**1,162,101**
Energy Generated by Genset (MWh)	160	1,200	627	860	**2,847**
Vehicles - Diesel (Ltrs)	10,637,887	16,713,753	6,817,041	7,600,924	**41,769,605**
Vehicles - Gasoline (Ltrs)	58,799	24,232	70,152	11,993	**165,176**
Electricity from Local Supply (MWh)	2,435	1,677	-	-	**4,112**
LPG (GJ)	-	-	-	-	**-**
2017					
Genset (Ltrs)	79,331	838,903	308,725	377,726	**1,604,685**
Energy Generated by Genset (MWh)	140	2,970	359	761	**4,230**
Vehicles - Diesel (Ltrs)	11,519,590	14,411,210	5,394,601	5,455,863	**36,781,264**
Vehicles - Gasoline (Ltrs)	60,270	13,439	5,664	7,792	**87,165**
Electricity from Local Supply (MWh)	2,338	957	-	-	**3,295**

Examples of initiatives were HMC's drive to replace ordinary fluorescent bulbs with LED lamps, utilization of solar energy in facilities located in remote areas, and proper monitoring of energy-consumption of electrical devices to avoid overloading.

RTN's energy conservation and fuel reduction programs also include the use of energy-saving equipment as well as retaining its solar drying process.

Meanwhile, TMC produces significant reduction of fuel consumption through the use of conveyor belt system with an equivalent hauling capacity of 15-20 dump trucks per hour. It also uses solar-powered electronics and is gradually shifting to the use of LED bulbs that also contributes to reduction of energy consumption.

For its part, CMC has adopted renewable energy sources for perimeter lighting and decorative light installation. And to conserve fuel, CMC adapts carpooling for personnel transport. Fuel-operated machines are turned off when not in use.

The Company continues to explore opportunities to incorporate renewable and energy-saving alternatives to the Company's present energy sources: RTN has conducted a feasibility study on using hybrid energy (solar-genset) as an energy source; and HMC has included windmill and solar power plants in its proposed research and development program.

WASTE MANAGEMENT

GRI 103-1, GRI 103-2, GRI 103-3

Cognizant of the global challenge that waste management presents to all countries, NAC aims to act as a responsible corporate citizen and proactively contribute to the solution by implementing an effective solid waste management plan. In 2019, the plan resulted in the Company having solid wastes segregated to 49% recyclables and 29% compostable wastes that it was able to dispose of accordingly.

NAC supports the principle of upcycling, which is the process of turning a waste material into something of higher quality and value. It also appreciates technologies that help the Company manage wastes effectively, such as DOST's bioreactor, vermicomposting, and mulching for biodegradable wastes; the use of Materials Recovery Facility (MRF) for recyclable and reusable wastes; and the use of sanitary landfill for residual wastes.

WASTE MANAGEMENT GRI 306-2

Type of Waste	RTN	TMC	HMC	CMC	Total	Disposal Method
2019						
Biodegradable Waste (kg)	58,940	27,755	37,300	20,151	**144,146**	Bioreactor Vermicomposting
Hazardous Waste (kg)	111,899	13,120	27,214	48,335	**200,568**	DENR-Accredited Transporter/Treater
Recyclable Waste (kg)	221,520	5,310	2,920	10,366	**240,116**	Materials Recovery Facility Eco Bricks
Residual Waste (kg)	52,210	16,176	28,030	13,155	**109,571**	Sanitary Landfill
Solid Waste (kg)	332,670	49,241	68,250	43,672	**493,833**	Materials Recovery Facility, Eco Bricks
Used Oil (Ltrs)	84,268	97,200	66,800	41,922	**290,190**	DENR-Accredited Transporter/Treater

Type of Waste	RTN	TMC	HMC	CMC	Total	Disposal Method
2018						
Biodegradable Waste (kg)	52,000	14,796	10,940	15,600	**93,336**	Vermicomposting/Sanitary Landfill
Hazardous Waste (kg)	122,650	62	2,593	-	**125,305**	DENR-Accredited Transporter/Treater
Recyclable Waste (kg)	246,000	2,160	980	5,047	**254,187**	Materials Recovery Facility
Residual Waste (kg)	53,000	12,524	8,620	13,098	**87,242**	Sanitary Landfill
Solid Waste (kg)	351,000	29,480	20,540	33,745	**434,765**	Materials Recovery Facility, Sanitary Landfill
Used Oil (Ltrs)	85,830	152,496	55,400	81,800	**375,526**	DENR-Accredited Transporter/Treater
2017						
Biodegradable Waste (kg)	48,150	26,762	32,376	9,771	**117,059**	Vermicomposting/Sanitary Landfill
Hazardous Waste (kg)	106,178	720	10,390	14,975	**132,263**	DENR-Accredited Transporter/Treater
Recyclable Waste (kg)	263,595	1,554	1,476	9,713	**276,338**	Materials Recovery Facility
Residual Waste (kg)	63,258	5,954	48,857	11,430	**129,499**	Sanitary Landfill

Additional initiatives by the operating mines include HMC's upcycling projects such as conversion of used tires to waste bins and materials for dragon fruit plantation, use of upcycled products to improve the look of view decks, distribution of water tumblers to employees to reduce plastic bottles usage, and making of foliar organic fertilizer to decrease the Company's use of artificial fertilizers.

Meanwhile, RTN implements a "No to Plastic" policy and integrates its waste management program to include waste diversion of biodegradable and recyclable wastes, in active compliance to RA 9003 for an ecological solid waste management plan.

TMC has chosen to replace steel-belted tires with a more recyclable alternative: nylon-belted tires. It also upcycles recyclable wastes to be used in landscaping.

CMC, on the other hand, has banned single use plastics in its facilities and chose to buy supplies in bulk to reduce packaging waste. Additionally, CMC launched a two-month eco-brick challenge to encourage its employees and local communities to turn over plastic bottles filled with residual waste. The turned over bottles were used in the Company's eco brick facility that has been making recyclable items such as flowerpots, pillow bricks, fence, tables, and chairs. Through this program, the Company and its local community was able to reduce its plastic waste.

Furthermore, the Company treats management of hazardous wastes with great care, guided by the provisions of RA 6969 on hazardous waste management. In 2019, operations produced around 201 tons of hazardous wastes and 290,190 liters of used oil. NAC made sure to follow the prescribed process for monitoring, storing, and disposing of such wastes, respective of type or category. All vendors for treatment and transport are DENR-accredited and employees receive regular in-house training related to hazardous waste management to keep them aware and alert of the dangers of hazardous waste to health and safety.

CLIMATE-RELATED RISKS AND OPPORTUNITIES

As an organization, NAC moves as one in its advocacy for responsible mining because it fully appreciates the synergetic relationship of communities with the planet's processes, including the impact of climate on everyday human life and enterprise.

With the governance and leadership of the Board of Directors and the management team, the Company has established an Enterprise Risk Management (ERM) system in order to have a proper measure in the identification, assessment, and management of risks that may affect the Company.

The Board, with the help of the Board Risk Oversight Committee, ensures that all risks are identified, measured, and managed effectively and continuously through the ERM. The Chief Risk Officer works with the Chairman and CEO and the President in updating and making recommendations to the Board Risk Oversight Committee.

Among the potential risks that the Company prepares mitigation plans for are those that would impact our people's safety, the supply chain, the reliable supply of energy, and the unhampered logistics in and out of mine sites.

Integral to the ERM are the preparation of both people and facilities for emergency situations, the training of emergency responders, the provision of equipment and technology, the redundancies for physical systems, and the existence and communication of a Business Continuity Plan (BCP).

NAC works together with the rest of the industry players, its host communities and nearby communities, government agencies and regulators, towards building resilient and sustainable communities that are proactively acting to protect shared natural resources that would benefit future generations.

MOVING COMMUNITIES TOWARDS GROWTH AND PROGRESS

GRI 103-1, GRI 103-2, GRI 103-3, GRI 413-1

SDG HIGHLIGHTS

SDG 1	130,789 People Supported by CSR and SDMP
SDG 10	21,075 IP Population Supported by SDMP
SDG 4	Php 27.8 Million Investment on Education Programs
SDG 4	3,560 Scholars Benefited from Education Programs
SDG 1	Php 39.9 Million Expenditure on Livelihood Programs
SDG 2	40 People's Organizations and 3 Cooperatives Benefited by Livelihood Programs
SDG 8	2,051 members of Peoples' Organizations Supported
SDG 3	2,173 Patients Benefited from Medical Missions Program

SDG 11	25 IPs participated in Cultural Literacy Program

NAC endeavors to strengthen its relationships with the communities within and near the areas of its operations. The Company maximizes the value of its social expenditures through a meaningful and relevant Social Development Management Program (SDMP) and Corporate Social Responsibility (CSR) initiatives.

The Company has exerted every effort to design SDMP and CSR programs that address the genuine needs of the communities and aim for long-term positive impact. Through collaborative partnerships, the Company invites communities to participate in program selection.

SDMP & CSR SPENDING (IN MILLION PHP)

Element		RTN	TMC	HMC	CMC	Total
2019						
SDMP	Required Spending	34.7	77.2	21.1	39.9	**172.9**
	Actual Spending	30.1	53.3	22.0	37.4	**142.8**
CSR	Non-IP Communities	34.9	15.6	10.8	9.0	**70.3**
	IP Communities	11.5	2.5	None	None	**14.0**
Total		**76.5**	**71.4**	**32.8**	**46.4**	**227.1**
2018						
SDMP	Required Spending	36.4	64.5	27.5	30.1	**158.5**
	Actual Spending	46.9	57.2	27.5	29.1	**160.7**
CSR	Non-IP Communities	42.7	7.7	4.3	7.6	**62.3**
	IP Communities	10.6	2.3	None	None	**12.9**
Total		**100.2**	**67.2**	**31.8**	**36.7**	**235.9**
2017						
SDMP	Required Spending	43.6	60.0	25.9	26.9	**156.4**
	Actual Spending	58.7	47.5	27.3	25.6	**159.1**
CSR	Non-IP Communities	106.5	4.9	6.0	10.1	**127.5**
	IP Communities	9.5	2.2	None	None	**11.7**
Total		**174.7**	**54.6**	**33.3**	**35.7**	**298.3**

IMPACT ON LOCAL COMMUNITIES GRI 413-2

Operations with significant impact/s	Location	Impact on Indigenous People? (Y/N)	Rights affected or concerns of the community	Mitigating or enhancement measures
RTN Mining Operations	Bataraza, Palawan	Y	Price increase on goods and commodities, fish, poultry, and meat products	❑ Constant price monitoring ❑ Establishment of poultry and swine farm to control prices

Operations with significant impact/s	Location	Impact on Indigenous People? (Y/N)	Rights affected or concerns of the community	Mitigating or enhancement measures
			Land and boundary conflict	❑ Coordinated with fact-finding committee ❑ Amicable settlement
			Siltation	❑ Establishment of 5 silt containment ponds ❑ Definition of drainage ❑ Maintenance/dredging of silt containment ponds ❑ Establishment of silt collector ponds ❑ Installation of water discharge points ❑ Water recycling
TMC Mining Operations	Claver, Surigao	Y	N/A	N/A
CMC Mining Operations	Dinagat Islands	N	Air pollution (dust)	❑ Water spraying ❑ Observance of speed limit ❑ Road maintenance through road grading and compacting
HMC Mining Operations	Tagana-an, Surigao Del Norte	N	Air pollution (dust)	❑ Water spraying ❑ Road maintenance through road grading
			Seedling production, mangrove	❑ Involvement of host community in output-based projects of Environment Department
			Siltation	❑ Establishment of settling ponds ❑ Desilting for maintenance

A. PROMOTING INCLUSIVE DEVELOPMENT FOR INDIGENOUS PEOPLES

NAC believes that the rights to Ancestral Domains of Indigenous Peoples deserve to be recognized and respected. Two of its operating mines, TMC and RTN, provide annual royalty payments, housing, and other benefits to their IP communities. TMC operates in an Ancestral

Domain while RTN operates in an area where IPs, though without an ancestral domain, hold a strong presence.

RTN, together with CNBC, started creating new agricultural community associations in the previous year. These community-based associations, composed mostly of indigent individuals, aim to bring a stable source of livelihood as well as job opportunities.

In 2019, RTN distributed vegetables seedlings to the IP community. This provides additional income for farmers in upland farming while waiting for harvest season. Thus, it is expected that the number of members will increase in the next few years as the community realizes the benefits of the program.

RTN also launched a cultural literacy program to preserve the culture and traditions of the Palaw'an tribe in the municipality of Bataraza. The cultural literacy program holds eight sessions per month which include lectures, learning activities, and performances for the students, with the elders of the Pala'wan IPs serving as instructors. RTN aims to encourage the IP youth and elders to preserve their traditional dances and music such as Taruk, Sapa-sapa, and Basal by teaching and passing them on to the younger generations.

B. EMPOWERING THE COMMUNITIES' HOPE THROUGH EDUCATIONAL SUPPORT

SUMMARY OF EDUCATIONAL PROGRAMS

	RTN	TMC	HMC	CMC
Total investment (Php)	6,404,529	8,901,375	5,383,129	7,145,298
Key programs	College & high school scholarship	Manpower, College financial assistance, Provision of school supplies and equipment	College scholarship, Financial assistance, Provision of school supplies, Alternative Learning System (ALS) program, Internet connection for high school & senior high school program	Assistance for the *Brigada Eskwela*, Provision of supplies and equipment, Financial assistance, Subsidy to teachers and daycare workers, Assistance to ALS

As NAC works with communities towards economic freedom, the Company makes it a point to invest in education-related initiatives that strengthen the youth and equip them with knowledge and confidence.

For instance, RTN provides educational assistance to 166 students – from kindergarten to elementary levels – in Sitio Tagpas, Barangay Latud in the town of Rizal, to support their studies throughout the year. The students, coming from impact barangays of IPs, were given funds to buy notebooks, school supplies, uniforms, and slippers. RTN also provides 13 high school scholars and three college students with monthly allowances.

RTN held a two-day summer camp for its scholars in Matahum Beach, Barangay Mangingisda, Puerto Princesa. The activity is aimed at getting to know the scholars better and to give them advice and counseling on their studies and future careers.

C. FUELING ENTREPRENEURIAL SPIRIT IN OUR COMMUNITY

SUMMARY OF LIVELIHOOD PROGRAMS

	RTN	TMC	HMC	CMC
Total investment (Php)	8,455,160	16,192,703	2,514,709	12,782,390
Key programs	Vegetable production, Provision of non-motorized banca w/ fishing implements, Skills trainings	Skills development and networking	Bangus production and capacity building, Technical training for project beneficiaries	Capability trainings and seminars, Basic driving and automotive servicing, Assistance to various farmers and fishers' associations, Farmer's storage facility, Construction of nursery building, Procurement of hand tillers and other farming tools and implements

Providing community members with skills and resources to uplift themselves is the key to a sustainable social development plan. NAC believes that learning practical livelihood programs and useful skills will lead people towards the path of financial stability and economic freedom. In 2019, TMC embarked on several major livelihood initiatives, including a Php 1.29 million native chicken poultry project for persons with disabilities (PWDs) in Barangay Cabuo, Claver, Surigao del Norte. A total of 55 PWDs belonging to the people's organization called Dapja, benefited from the project. This aligned with TMC's thrust to provide livelihood opportunities to different sectors of society, including PWDs.

Dapja members and their families provided the labor for the construction of the facility. They take turns in manning, managing, and monitoring the poultry farm. The structure sits on a one-hectare lot owned by the group's president, Eddie F. Gasulas. To ensure the sustainability of the project, TMC continuously monitors its progress while bringing technical assistance from the Department of Agriculture (DA).

TMC also donated farm equipment worth Php 3.0 Million to a 35-member farmers' cooperative in Claver – the Red Mountain Agriculture Cooperative (CREMACO) – to uplift the group's economic potential. TMC provided CREMACO four units of farm equipment: a combine harvester, a farm tractor with rotavator, and two walk-behind transplanters. A rice mill complex is being constructed in barangay Daywan to help the local farmers price their *palay* competitively.

For its part, HMC turned-over a Php 3.5 million fully equipped deep-sea fishing boat to the Campandan Fisherfolks Association (CAMFISA) in a bid to boost the livelihood of local fishermen in Tagana-an, Surigao del Norte. CAMFISA operates a fish processing center. The fishing boat was a big help for their dried fish and bottled fish production, which was also initiated by HMC. With their very own deep-sea fishing boat, CAMFISA no longer relies solely on the catch of other fishermen for fish supply.

HMC also turned over a soft-shell crab project to three indigent families from its host community in Looc, Sitio Bagong Silang, Barangay Talavera, Tagana-an, Surigao del Norte. The beneficiaries of the project were selected based on their Socio-Economic Profile. The beneficiaries of this project were not part of any People's Organizations (POs) thus, such opportunities were not readily accessible to them. The beneficiaries – Rosita G. Sandico and Cristine C. Baguinaon – are residents of Looc, Sitio Bagong Silang, while Arnulfo C. Copag Sr. is from Brgy. Talavera. Providing technical assistance to the project were experts from the City Agriculturists Office (CAGRO) of Tagum City.

Meanwhile, in a move to provide vital access for thousands of residents to boost local economic development, CMC turned over a 3.1-kilometer access road that connected two coastal towns in Dinagat Islands. The Php 4.8-Million Legaspi-Benglen Farm-to-Market Road connecting Brgy. Legaspi in Cagdianao and Brgy. Benglen in Libjo benefitted two villages from separate towns as well as CMC's host and neighboring barangays. Fishermen and farmers from coastal and inland villages are now able to sell their produce without having to travel by sea, which is unnavigable during monsoon season.

Cagdianao Mayor Adolfo Longos lauded CMC for entrusting the road project to the local government unit as its implementing partner. The Mayor remarked that he has *"never seen a mining company approach a development initiative this way, which encourages participation from all sectors. Truly, CMC is a responsible mining company."*

CMC also supported 65 farmers of the Cabiton-an Farmers' Association with a livelihood project that provided a rice mill, a garage building, and a nursery building situated at Sitio Cabiton-an, Barangay Legaspi, Cagdianao, Province of Dinagat Islands. The project cost amounted to Php 993,000.00.

CMC was also able to turn over a P5.6-million ice plant and cold storage facility to Gaas Dinagat Fishermen Cooperative (GADIFCO). The project is seen to fill a crucial demand for ice blocks in this island province, while boosting the income of the beneficiaries by selling ice to other fisherfolks in neighboring villages and even in other parts of Dinagat Islands.

Mansueto G. Cadeliña, Bureau of Fisheries and Aquatic Resources (BFAR) provincial fisheries officer, confirmed that GADIFCO's ice plant and storage facility is the only one of its kind operating in the province, so far. The BFAR official noted that this project "really helps our fishermen in Cagdianao to earn more sustainably. This is a remarkably effective support to the campaign of BFAR dubbed *"Para sa Malinis at Masaganang Karagatan".*

Also in 2019, NAC provided trainings on organic farming, bamboo propagation and marketing, mushroom farming, climate-smart agriculture, farm tourism and community sustainability ventures (CSV) for 30 community organizers and environment personnel. NAC is planning to adopt viable livelihood trends, such as bamboo propagation and production, and hopes to replicate and implement these programs in all NAC mines.

D. PROMOTING HEALTH AND WELLNESS IN OUR COMMUNITY

SUMMARY OF HEALTH PROGRAMS

	RTN	TMC	HMC	CMC
Total investment (Php)	4,690,025	3,247,310	2,047,567	2,500,000
Key programs	Hospital subsidy for Indigenous People and indigents, Health awareness programs (Dengue, Malaria, Tuberculosis, Maternal & Child Care)	Manpower support, Provision of medicines and medical supplies, Clean and green program	Quarterly medical-dental mission, Provision of health and food supplies to senior citizens & PWDs, Provision of honorarium per services, Health enhancement trainings, Mortuary assistance	Assistance to health-related concerns, Provision of health center facilities and equipment, first aid medicines, health supplies to senior citizens & PWD, Medical Mission, Capacity enhancement training for CHWs

Consideration for the health and wellness of communities inspired us to put up fully equipped medical facilities in each of our operating mines. Aside from providing medical services through these facilities, the Company also organizes medical missions for other nearby communities.

In 2019, NAC organized free medical and surgical missions that benefitted almost 600 patients. The medical-surgical mission is an annual charity of RTN, TMC, HMC, and CMC with the participation of CBNC and Taganito HPAL Corporation (THPAL).

The 2019 NAC annual medical and surgical mission was conducted in Palawan and Surigao del Norte in collaboration with provincial and local governments. It provided free major and minor operations to residents of surrounding and adjacent communities. It also offered free consultations, check-ups, and room accommodation, transport and food for those requiring major procedures.

Meanwhile, to provide much needed resources to communities, HMC donated a brand-new Toyota HiAce Commuter ambulance with complete accessories to the Municipality of Tagana-an in Surigao del Norte. The donation, worth Php 1.2 million, was made possible through the 2019 CSR funds of HMC. The ambulance will greatly help in emergency transport needs of the

Municipality that has 14 barangays. It will also aid in boosting the medical services provided by the Tagana-an Municipal Health Office.

Another essential facility for health and wellness is the availability of toilets. To encourage proper hygiene and help prevent cases of diarrhea in the communities, RTN donated squat latrine toilets and supply of cement for flooring to 69 households in Sitio Magtunao, Barangay Culandanum in Bataraza.

Before the distribution, the community relations team of RTN, together with medical professionals from the Department of Health (DOH), conducted an IEC to educate the community.

CERTIFICATION

The Nickel Asia Corporation (NAC) Properties are: Rio Tuba Nickel Mining Corporation (RTN) located at Brgy. Rio Tuba, Bataraza, Palawan; Taganito Mining Corporation (TMC) located at Brgy. Taganito, Claver, Surigao del Norte; Cagdianao Mining Corporation (CMC) located at Brgy. Valencia, Cagdianao, Surigao del Norte; Hinatuan Mining Corporation (HMC) located at Hinatuan Island, Taganaan, Surigao del Norte and Dinapigue Mining Corporation (DMC) located at Dinapigue, Isabela.

As of December 31,2019, the Company's Total Ore Reserves in accordance with the Philippine Mineral Reporting Code (PMRC) are as follows:

Ore Reserves	Classification	Tonnes (kWMT)	Tonnes (kDMT)	%Ni	%Fe	Contained Ni (kT)
Saprolite	Proved and Probable	104,562	70,094	1.47	12.74	1,028
Limonite	Proved and Probable	232,531	156,298	1.14	40.57	1,780

The undersigned is issuing this certification in his capacity as PMRC Competent Person accredited by the Philippine Society of Mining Engineers for ore reserves declared by the Company for its properties. The undersigned is fully aware that, being under the employment of Nickel Asia Corporation, his certification may be subjected to review or scrutiny by other independent Competent Persons whom the concerned government institution(s) of financing bodies might choose to employ.

ALOYSIUS C. DIAZ
Mining Engineer, License No. 980
PMRC Competent Person for Coal, Copper and Nickel
CP Registration No.: EM-ACP-012-0000980
PTR No. 4954545-Z
Issued: January 23,2020, Surigao Del Norte

CERTIFICATION

The Nickel Asia Corporation (NAC) Properties are: Rio Tuba Nickel Mining Corporation (RTN) located at Brgy. Rio Tuba, Bataraza, Palawan; Taganito Mining Corporation (TMC) located at Brgy. Taganito, Claver, Surigao del Norte; Cagdianao Mining Corporation (CMC) located at Brgy. Valencia, Cagdianao, Surigao del Norte; Hinatuan Mining Corporation (HMC) located at Hinatuan Island, Taganaan, Surigao del Norte and Dinapigue Mining Corporation (DMC) located at Dinapigue, Isabela.

As of December 31,2019, the Company's Total Mineral Resources in accordance with the Philippine Mineral Reporting Code (PMRC) are as follows:

Mineral Resources	Classification	Tonnes (kWMT)	Tonnes (kDMT)	%Ni	%Fe	Contained Ni (kT)
Saprolite	Measured and Indicated	162,337	108,057	1.44	12.81	33.44
Limonite	Measured and Indicated	262,647	175,842	1.13	41.36	33.05
Saprolite	Inferred	44,536	29,163	1.26	13.64	34.52
Limonite	Inferred	20,499	13,747	1.09	35.50	32.94

Note:

1. The 'Contained Ni (kT)' is derived from the multiplication of the average Ni% and estimated tonnage (DMT) of the resource. It does not consider mining losses and dilution. Discrepancies may appear due to rounding off of figures in the table.
2. The Ni% and Fe% cut-off grades used in this estimation vary per property.
3. Approximately 4.8 million WMT of the total saprolite resources and 22.5 million WMT of the total limonite resources is within the economic zones of RTN and TMC.

The undersigned is issuing this certification in her capacity as Competent Person accredited by the PMRC and as an active member of the Geological Society of the Philippines for the resource declared by the company for its properties. She is fully aware that, being under the employment of Nickel Asia Corporation, her certification may be subjected to review or scrutiny by other independent Competent Persons whom the concerned government institution(s) of financing bodies might choose to employ.

Kgraunhutarua

KRISTINE GRACE CAPUZ VICTORIA
Geologist, PRC No. 1721
Competent Person for Nickel, CP Reg. No. 19-08-02
PTR No. A-4765984
Issued: Jan.14,2020, Taguig City