



# 中國有色礦業有限公司

China Nonferrous Mining Corporation Limited

(Incorporated in Hong Kong with limited liability under the Companies Ordinance)

Stock Code: 01258

## 2017 ANNUAL REPORT



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# CORPORATE INFORMATION

## REGISTERED OFFICE

Room 1201, Allied Kajima Building  
138 Gloucester Road  
Wanchai, Hong Kong

## PRINCIPAL PLACE OF BUSINESS IN ZAMBIA

32 Enos Chomba Road  
Kitwe, Zambia

## COMPANY'S WEBSITE

[www.cnmcl.net](http://www.cnmcl.net)

## STOCK CODE

1258

## DIRECTORS

### Executive Directors

Mr. Xinghu Tao (*Chairman*)  
Mr. Lin Zhang (*President*)  
*(appointed on 19 May 2017)*  
Mr. Chunlai Wang (*Vice President*)  
Mr. Wei Fan (*Vice President*)  
Mr. Kaishou Xie (*Vice President*)  
Mr. Xingeng Luo (*Vice President*)  
*(resigned on 19 May 2017)*

### Non-Executive Director

Mr. Diyong Yan (*Vice Chairman*)

### Independent Non-Executive Directors

Mr. Chuanyao Sun  
Mr. Jingwei Liu  
Mr. Huanfei Guan



A general view of the exterior of Chambishi Copper Smelter

# CORPORATE INFORMATION (CONTINUED)

## THE COMMITTEES OF THE BOARD

### Audit Committee

Mr. Jingwei Liu (*Chairman*)  
Mr. Diyong Yan  
Mr. Huanfei Guan

### Nomination Committee

Mr. Chuanyao Sun (*Chairman*)  
Mr. Diyong Yan  
Mr. Jingwei Liu

### Remuneration Committee

Mr. Huanfei Guan (*Chairman*)  
Mr. Diyong Yan  
Mr. Chuanyao Sun

### Compliance Committee

Mr. Xinghu Tao (*Chairman*)  
Mr. Chuanyao Sun  
Mr. Huanfei Guan

## JOINT COMPANY SECRETARIES

Mr. Aibin Hu  
Mr. Tin Wai Lee *CPA*

## LEGAL ADVISER

Baker & McKenzie  
14/F, Hutchison House  
10 Harcourt Road  
Hong Kong

## AUDITOR

Deloitte Touche Tohmatsu  
*Certified Public Accountants*  
35/F., One Pacific Place  
88 Queensway  
Hong Kong

## HONG KONG SHARE REGISTRAR

Computershare Hong Kong  
Investor Services Limited  
Shops 1712-1716, 17th Floor  
Hopewell Centre, 183 Queen's Road East  
Wanchai, Hong Kong

# CHAIRMAN'S STATEMENT



*Chairman of the Board*  
**Xinghu Tao**

## CHAIRMAN'S STATEMENT (CONTINUED)

### Dear Shareholders,

I would like to take this opportunity to extend my heartfelt gratitude to the Shareholders and all sectors of the society for their care, support and help to China Nonferrous Mining Corporation Limited, and to thank the management and staff for their contributions to the operation and management of the Company.

In 2017, the world economy continued to undergo shocks and adjustments. The Board, the management and the staff of the Company made concerted efforts to expand the external market, strengthen internal management, and vigorously tap potentials and improve efficiency. As a result, the Group recorded an increase of 9.1%, 17.3% and 13.5% in product volume of blister copper, copper cathode and sulfuric acid, respectively, as well as an increase of 40% in revenue in 2017 as compared with the same period last year, and the production costs were controlled effectively. Profit attributable to the owners of the Company amounted to US\$142.4 million, representing an increase of 1,107% as compared with the year 2016.

Looking ahead, notwithstanding a number of challenges, the global economy is making progress in the long run with the emerging market embracing rapid growth and all developed economies reviving synchronously. After six-year-long in-depth adjustment in the bulk commodity market, prices of copper will continue to improve in the wake of the economic ascent and improvement of supply and demand, and the copper prices are expected to remain promising in the long run.

In order to further strengthen its competitiveness in the market, the Group will keep on developing Chambishi Southeast Mine and promoting the standardised production and fulfillment of designed capacity of new projects such as the Mwambashi Strip Mine Project, Lualaba smelting, etc., in the light of its own development strategies so as to secure additional sources for improvement of yield and efficiency. Meanwhile, it will carry out mining activities in Chambishi Main Mine and Chambishi West Mine in an orderly way and facilitate the improvement of quality and efficiency for the CCS, Luanshya Muliashi, SML, Huachin Leach and CNMC Huachin Mabende, with a view to elevating the existing business performance. Moreover, the Group will pay attention to and make good use of market opportunities, and devote more efforts to the exploration of Kambove Mining to further replenish its copper and cobalt reserves and resources, striving for continuous enhancement of its leaching and smelting production capacity. In addition, further efforts will also be exerted to optimise the product mix and industrial structure, improve the operation quality and efficiency of the Company and fully exhibit its advantages as a vertical producer of copper and cobalt integrating exploration, processing and smelting so as to generate better operating results.

As a responsible corporate-citizen, the Group will continue to implement the development vision of “innovation, coordination, eco-friendliness, openness and sharing”. While developing resources in accordance with the requirements of the Environmental, Social and Governance Reporting Guide, the Group will value highly of the environmental protection and the sustainable use of resources, strictly abide by various employment regulations and governance practices, seek to improve the working environment of the staff, ensure the safety and efficiency of production and properly handle concerns of stakeholders such as suppliers and communities so as to realize win-win situations.

### **Xinghu Tao**

*Chairman of the Board*

**China Nonferrous Mining Corporation Limited**

Hong Kong, 29 March 2018

# RESULTS HIGHLIGHTS

## OPERATING RESULTS

In 2017, the Group recorded revenue of US\$1,838.7 million, representing an increase of 40.0% as compared with 2016.

In 2017, the Group recorded profit attributable to owners of the Company of US\$142.4 million, representing an increase of US\$130.6 million as compared with 2016.

## CHANGES IN PRODUCT OUTPUT

In 2017, the Group produced 34,725 tonnes of copper concentrate, representing an increase of 22.1% year-on-year.

In 2017, the Group produced 224,920 tonnes of blister copper, representing an increase of 9.1% year-on-year.

In 2017, the Group produced 89,068 tonnes of copper cathodes, representing an increase of 17.3% year-on-year.

In 2017, the Group produced 594,533 tonnes of sulphuric acid, representing an increase of 13.5% year-on-year.



## RESULTS HIGHLIGHTS (CONTINUED)

### STEADY PROGRESS IN PROJECT DEVELOPMENT

The integrated exploration and construction project of the Chambishi Southeast Mine of NFCA is under development. As at the end of December 2017, approximately 62.5% of the total investment had been completed. The project is expected to be completed in the third quarter of 2018.

The Mwambashi Strip Mine Project of SML comprises a strip mine with a designed capacity of 600,000 tonnes of ores per annum and a processing plant with a daily capacity of 2,000 tonnes. The strip mine completed construction and commenced formal production at the end of June 2016. Instead of building a new plant, the processing plant would be built by reconstructing and expanding another plant with a daily capacity of 1,000 tonnes to a processing plant with a daily capacity of 2,000 tonnes. The reconstruction and expansion project commenced in April 2016. As of 31 December 2017, an accumulative investment of US\$4.8623 million had been completed, representing 55.0% of the total planned investment.

CCS has two projects under progress, namely the Tailings Pond Phase II Project and the Liquid Sulphur Dioxide Project.

- The Tailings Pond Phase II Project commenced on 1 May 2017 and would last for 15 months. As of 31 December 2017, the construction of the main part was completed and an accumulative amount of US\$4.8 million had been invested, representing 48.3% of the total planned investment.
- The Liquid Sulphur Dioxide Project produces liquid sulphur dioxide with smelting by-products and existing public facilities. After taking into account various market factors, the Company decided with prudence to call a halt to this project.

Lualaba Copper Smelter has two projects under progress, namely the Blister Copper Smelting Project and the Cobalt Recycling System Project.

- The Blister Copper Smelting Project is a copper concentrate (dry) smelting project with an annual capacity of 400,000 tonnes. It would be constructed to produce approximately 118,000 tonnes of blister copper per annum. With an investment budget of US\$437.6 million, the construction of such project was scheduled to commence on 28 March 2018 and would last for two years.
- The Cobalt Recycling System Project was a sub-system of the copper concentrate (dry) and blister copper smelting project with an annual capacity of 400,000 tonnes, and it would produce 10,000 tonnes of copper-cobalt alloy per annum and had an investment budget of US\$33.1 million. Such project will be constructed along with the Blister Copper Smelting Project.

As for the Kambove Exploration Project of Kambove Mining SAS, the Company had obtained an exploration right covering 3,058.2 hectares and an abandonment right covering 509.7 hectares, and had completed the exploration activities concerning the bottom and walls of the open pit of the main orebody of Kambove as well as the field exploration by means of drilling holes. The western mine are currently carrying out further exploration.

In addition, the Group conducted research on the development of new mining exploration and mining projects in Zambia and DRC to actively expand its resource reserves and enhance its smelting production capacity, so as to secure the continuous growth of the Company.



# MANAGEMENT DISCUSSION AND ANALYSIS

## FINANCIAL REVIEW

### Results of Operations

The following table sets forth sales volume, average selling price, revenue and percentage contribution to total revenue of the products of the Group during the years indicated.

	For the year ended 31 December							
	2017				2016			
Sales Volume <i>(1), (2)</i>	Average Selling Price <i>(US\$ per tonne)</i>	Revenue <i>(US\$'000)</i>	% of Total Revenue <i>(%)</i>	Sales Volume <i>(1)</i>	Average Selling Price <i>(US\$ per tonne)</i>	Revenue <i>(US\$'000)</i>	% of Total Revenue <i>(%)</i>	
<i>(Tonnes)</i>	<i>(US\$ per tonne)</i>	<i>(US\$'000)</i>	<i>(%)</i>	<i>(Tonnes)</i>	<i>(US\$ per tonne)</i>	<i>(US\$'000)</i>	<i>(%)</i>	
Blister copper	225,208	5,707	1,285,166	69.9	206,380	4,571	943,461	71.8
Copper cathodes	87,860	5,626	494,288	26.9	77,672	4,318	335,409	25.5
Copper-cobalt alloy	778	4,962	3,861	0.2	–	–	–	–
Sulphuric acid	399,859	139	55,416	3.0	297,476	116	34,421	2.7
<b>Total</b>		<b>1,838,731</b>	<b>100.0</b>			<b>1,313,291</b>	<b>100.0</b>	

#### Notes:

- (1) The sales volumes of all the products (except for sulphuric acid and copper-cobalt alloy) are on a contained-copper basis.
- (2) The copper-cobalt alloy production contains approximately 238 tonnes of copper and approximately 78 tonnes of cobalt.



Leach solution from spray leaching of Muliashi Project

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Revenue

The revenue of the Group increased by 40.0% from US\$1,313.3 million in 2016 to US\$1,838.7 million in 2017. In 2017, the Group's revenue generated from blister copper, copper cathode, copper-cobalt alloy and sulphuric acid accounted for 69.9%, 26.9%, 0.2% and 3.0%, respectively, of the total revenue.

The revenue from blister copper increased by 36.2% from US\$943.5 million in 2016 to US\$1,285.2 million in 2017, mainly due to the increase in international copper prices and sales volume. Sales volume of blister copper increased by 9.1% to 225,208 tonnes in 2017 as compared to that in 2016.

The revenue from copper cathode increased by 47.4% from US\$335.4 million in 2016 to US\$494.3 million in 2017, mainly due to the increase in international copper prices and sales volume. Sales volume of copper cathode increased by 13.1% from 77,672 tonnes in 2016 to 87,860 tonnes in 2017.

The revenue from sulphuric acid increased by 61.0% from US\$34.4 million in 2016 to US\$55.4 million in 2017, primarily attributable to the increase in the production volume of blister copper in 2017 as compared with that in 2016, which in turn increased the production volume of sulphuric acid, a by-product generated during the production of blister copper, the sales volume of which increased by 34.4% from 297,476 tonnes in 2016 to 399,859 tonnes in 2017. At the same time, the unit selling price of sulphuric acid increased by 19.8% from US\$116 in 2016 to US\$139 in 2017.

### Cost of sales

The following table sets forth the costs of sales, unit costs of sales, gross profits and gross profit margins of the products of the Group during the periods indicated.

	For the year ended 31 December							
	2017				2016			
	Cost of sales	Unit cost of sales	Gross profit	Gross profit margin	Cost of sales	Unit cost of sales	Gross profit	Gross profit margin
	(US\$'000)	(US\$ per tonne)	(US\$'000)	(%)	(US\$'000)	(US\$ per tonne)	(US\$'000)	(%)
Blister copper	1,117,049	4,960	168,117	13.1	833,145	4,037	110,316	11.7
Copper cathodes	273,910	3,118	220,378	44.6	270,379	3,481	65,030	19.4
Copper-cobalt alloy	4,282	5,503	(421)	-10.9	-	-	-	-
Sulphuric acid	11,542	29	43,874	79.2	9,854	33	24,567	71.4
<b>Total</b>	<b>1,406,783</b>		<b>431,948</b>	<b>23.5</b>	<b>1,113,378</b>		<b>199,913</b>	<b>15.2</b>

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

The cost of sales of the Group increased by 26.4% from US\$1,113.4 million in 2016 to US\$1,406.8 million in 2017, primarily due to the increased total costs as a result of the increased sales volume of blister copper, copper cathode and sulphuric acid. In addition, the increase in copper price also led to a higher purchasing cost of copper concentrate used as raw material for the production of blister copper.

The cost of sales of blister copper increased by 34.1% from US\$833.1 million in 2016 to US\$1,117.0 million in 2017, primarily due to the increase in the sales volume of blister copper and the higher purchase price of copper concentrate attributable to the increase in international copper prices.

The cost of sales of copper cathode increased by 1.3% from US\$270.4 million in 2016 to US\$273.9 million in 2017, primarily due to a significant increase of 13.1% in the sales volume of copper cathode.

The cost of sales of sulphuric acid increased by 16.2% from US\$9.9 million in 2016 to US\$11.5 million in 2017, primarily due to the increase of 34.4% in sales volume of sulphuric acid.

### **Gross profit and gross profit margin**

The Group recorded a gross profit of US\$431.9 million in 2017, representing an increase of 116.1% from US\$199.9 million in 2016. The gross profit margin increased from 15.2% in 2016 to 23.5% in 2017. In particular:

The gross profit margin of blister copper increased from 11.7% in 2016 to 13.1% in 2017, primarily attributable to a smaller increment in unit cost of sales than that in copper price.

The gross profit margin of copper cathode increased from 19.4% in 2016 to 44.6% in 2017, primarily due to the increase in international copper prices and decrease in unit cost of sales.

The gross profit margin of sulphuric acid increased from 71.4% in 2016 to 79.2% in 2017, primarily due to the increase in the average selling price of sulphuric acid.

### **Distribution and selling expenses**

The distribution and selling expenses of the Group increased by 63.6% from US\$28.3 million in 2016 to US\$46.3 million in 2017. This is mainly because more sulphuric acid in 2017 was sold to the DRC due to an intensified competition in Zambia sulphuric acid market, which resulted in a substantial increase in freight expense.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## **Administrative expenses**

The administrative expenses of the Group increased by 15.3% from US\$46.3 million in 2016 to US\$53.4 million in 2017, primarily due to increased expenses in response to increased production volume as a result of expanded production.

## **Finance costs**

The finance costs of the Group increased by 3.1% from US\$22.4 million in 2016 to US\$23.1 million in 2017, primarily due to increased financing scale.

## **Other Expenses**

Other expenses of the Group mainly included maintenance charges incurred by the suspension of production of the Baluba Mine of Luanshya in 2017.

## **Other gains and losses**

Other gains and losses of the Group increased by US\$15.0 million from a net gain of US\$3.1 million in 2016 to US\$18.1 million in 2017, mainly due to the increase in gains from change in fair value of derivatives arising from provisionally priced sales arrangements.

## **Income tax expense**

The income tax expenses of the Group increased by US\$61.7 million from US\$23.7 million in 2016 to an expense of US\$85.4 million in 2017, mainly due to the substantial increase in profit before tax in 2017 as compared to that of 2016.

## **Profit and net profit margin attributable to owners of the Company**

As a result of the foregoing, the profit attributable to owners of the Company increased significantly by US\$130.6 million from US\$11.8 million in 2016 to a profit of US\$142.4 million in 2017. The profit margins attributable to owners of the Company (being the profit attributable to the owners of the Company as a percentage of revenue) were 0.9% in 2016 and 7.7% in 2017, respectively.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## LIQUIDITY AND CAPITAL RESOURCES

### Cash flows

The following table sets forth certain information regarding the consolidated statements of cash flows of the Group for the periods indicated:

	For the year ended 31 December	
	2017 US\$'000	2016 US\$'000
NET CASH FROM OPERATING ACTIVITIES	<b>335,782</b>	121,946
NET CASH USED IN INVESTING ACTIVITIES	<b>(204,293)</b>	(56,257)
NET CASH FROM FINANCING ACTIVITIES	<b>37,243</b>	59,684
NET INCREASE IN CASH AND CASH EQUIVALENTS	<b>168,732</b>	125,373
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR	<b>685,327</b>	560,246
Effect of foreign exchange rate changes on the balance of cash held in foreign currencies	<b>925</b>	(292)
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		
Represented by:		
Bank balances and cash	<b>854,984</b>	685,327

### *Net cash flows generated from operating activities*

Cash inflows generated from operating activities are primarily attributable to the sales revenue of copper and sulphuric acid products and cash outflows are primarily attributable to various operating expenses. Net cash flows generated from the operating activities of the Group increased by 175.5% from an inflow of US\$121.9 million in 2016 to an inflow of US\$335.8 million in 2017, primarily attributable to the increase in both sales volume and product prices as compared to those in the corresponding period last year.

### *Net cash flows used in investing activities*

Cash outflows used in investing activities are mainly for the purchase of properties, plants and equipment for copper production. The net cash flows used in investing activities of the Group increased by 262.9% from an outflow of US\$56.3 million in 2016 to an outflow of US\$204.3 million in 2017, primarily attributable to increased investments in the project of the Southeast Mine of NFCA.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## *Net cash flows generated from financing activities*

The cash inflows generated from financing activities primarily consist of new bank borrowings and other borrowings. The cash outflows from financing activities primarily consist of repayments for bank borrowings, payments of dividends and interest payments. The net cash flows generated from financing activities of the Group decreased by US\$22.5 million from an inflow of US\$59.7 million in 2016 to an inflow of US\$37.2 million in 2017, primarily due to dividend distributed to non-controlling shareholders in 2017.

## **Bank balances and cash**

The Group's bank balances and cash (including cash, time deposits and demand deposits) increased by US\$169.7 million from US\$685.3 million as at 31 December 2016 to US\$855.0 million as at 31 December 2017.

## **Trade receivables**

The trade receivables of the Group increased by US\$10.7 million from US\$224.2 million as at 31 December 2016 to US\$234.9 million as at 31 December 2017, which was due to the increase in sales volume of copper products and the rises in the international copper prices in 2017.

## **Inventories**

The inventories held by the Group increased by US\$66.8 million from US\$316.8 million as at 31 December 2016 to US\$383.6 million as at 31 December 2017. In particular, raw materials and spare parts and consumables of the Group as at 31 December 2017 increased by US\$42.5 million as compared with that of 31 December 2016, work in process increased by US\$15.7 million and finished products increased by US\$8.6 million. The increase in raw materials was mainly due to significantly increased inventory of ores in DRC in order to meet production plans and changes in the market.

## **Significant investments held, material acquisitions and disposals of subsidiaries and future plans for material investments or acquisition of capital asset**

Save as disclosed in this annual report, there were no other significant investments held, material acquisitions or disposals of subsidiaries during the year ended 31 December 2017. Apart from those disclosed in this annual report, there was no plan approved by the Board for other material investments or acquisition of capital assets as at the date of this annual report.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Charge on assets

As at 31 December 2017 and 2016, no assets of the Group were pledged.

### Gearing ratio

As at 31 December 2017, the gearing ratio was 45.9% (as at 31 December 2016: 66.4%) which is calculated by the net debts (being bank and other borrowings minus bank balances and cash, bank deposits and restricted bank balances) divided by the total equity attributable to owners of the Company.

### Contingent liabilities

Other than disclosed in note 38 to the audited consolidated financial statements of this annual report, there were no other material contingent liabilities.

### Bank and other borrowings

Details of bank and other borrowings as at 31 December 2017 are included in note 25 to the audited consolidated financial statements of this annual report. Except for the loan from CNMC in the amount equivalent to US\$1,077,000 is made in RMB, other loans of the Group are made in US\$. Save for the loan from a fellow subsidiary of US\$247,000,000 which has a fixed interest rate, other loans of the Group do not have fixed interest rate.

### Trade payables

Trade payables of the Group decreased by US\$10.3 million from US\$276.0 million as at 31 December 2016 to US\$265.7 million as at 31 December 2017, mainly due to the decrease in the payables arising from procurement of copper concentrate.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Capital expenditure

	For the year ended	
	31 December	
	2017	2016
	(US\$'000)	(US\$'000)
Mining and ore processing facilities at Chambishi Southeast Mine of NFCA	141,731	83,849
Other mining and ore processing facilities of NFCA	48,436	3,796
Mining and ore processing facilities at Luanshya (Baluba Center Mine)	7,203	1,576
Mining and leaching facilities at Luanshya (Muliashi Project)	661	9,971
Smelting facilities at CCS	12,055	4,122
Leaching facilities at SML	5,556	1,916
Leaching facilities at Huachin Leach	4,210	2,366
Mining rights and leaching facilities at CNMC Huachin Mabende	3,890	5,967
Smelting facilities at Lualaba Copper Smelter	4,503	–
Mining and the processing facilities at Kambove Mining	335	–
<b>Total</b>	<b>228,580</b>	<b>113,563</b>

The total capital expenditure of the Group increased by US\$115.0 million from US\$113.6 million in 2016 to US\$228.6 million in 2017, mainly due to the investment increase in the Southeast Mine and Lualaba Copper Smelter projects .



Panorama of Chambishi Copper Mine processing plant



# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## Financial policies

During the year ended 31 December 2017, the Group had in place the Financial Budget Management System, the Funds Management System, the Inventories Management System, the Fixed Assets Management System, the Financial Information Disclosure Management System, Management Measures on Approval Procedures and Permissions of Financial Income and Expenses of the Central Office and other financial policies, which aim to regulate and enhance internal control of relevant activities of the Group to ensure the safety of the Group's assets, protect investors' interests and improve operation and management level for compliance with relevant laws and regulations of Hong Kong as well as the Listing Rules.

Please also refer to note 34 to the audited consolidated financial statements contained in this annual report for the financial instruments (which include the financial risk management objectives and policies).

## Principal risks and uncertainties

Although we have established the risk management system to identify, analyse, evaluate and respond to risks, our business activities are subject to the following risks, which could have material effects on our strategy, operations, compliance and financial condition. We urge you to carefully consider the risks described below.

### Copper price affects the business, cash flow and profit of the Group

The sharp fluctuation of copper price mainly reflects the change in supply and demand of copper products, the market uncertainty and other factors which are out of control of the Group, including but not limited to the overall economic situation, political unrest, armed conflicts, terrorist acts, economic condition in major copper producing countries, availability of other metals, regulations of governments both onshore and offshore, natural disasters and weather conditions. Price fluctuation will have a material impact on the business, cash flow and revenue of the Group.

Low copper price may have a negative impact on the business, revenue and profit of the Group, which will lead the Group to write off reserves and other assets with relatively higher cost, or to reduce the production volume of economic copper and terminate the existing unprofitable contracts. The consistently low copper price will affect the long-term project investment strategy and operational capacity of the Group.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### **Commodity price risk**

The Group's commodity price risk is mainly the exposure to fluctuations in the market price of copper which affect the prices of the major commodities purchased, produced and sold by the Group. To mitigate this risk, the Group has entered into copper futures contracts and provisional price arrangements to manage its exposure in relation to forecasted sales of copper products, forecasted purchase of copper concentrate, inventories and the Group's commitment to sell its copper products.

### **Foreign currency exchange risk**

The Group operates business in Zambia and the DRC and most of its sales and purchases in the past were denominated in US dollar, its functional currency, while certain sales, purchases and taxes were settled in currencies other than its functional currency (mainly ZMK, Congolese Franc and RMB), which exposed the Group to foreign currency risk. To mitigate such risk, the Group engaged in foreign currency exchange hedging activities through various methods including locking the signing and settlement currency and speeding up value-added tax rebates.

### **Interest rate risk**

The Group is exposed to interest rate risk of cash flow under the impact of interest rates changes of interest-bearing financial assets and liabilities which mainly include interest-bearing restricted bank balances, bank balances and bank and other borrowings at variable interest rates. The Group currently does not have any interest rate hedging policy. However, the Directors will consider hedging significant interest rate risk should the need arise.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## OVERVIEW

In 2017, benefited from the increase in copper price, the Group seized the opportunity and carried out works including market development, internal cost management, quality and efficiency enhancement, and scientific and technological innovation, thus overfulfilled the annual objectives in production and operation.

During the reporting period, the production and sales volumes of the main products of the Company, being blister copper, copper cathodes and sulphuric acid, have increased. The revenue increased by 40.0% to US\$1,838.7 million over the last year.

During the reporting period, the profit attributable to owners of the Company amounted to US\$142.4 million, representing an increase of US\$130.6 million over the last year, which is mainly due to the increase in copper price, the Company's strengthened management resulting in the increase in production and sales volumes and the decrease in unit cost of production.

Meanwhile, along with the construction of the planned projects including Chambishi Southeast Mine with an investment of US\$830 million and the Blister Copper Smelting Project of Lualaba Copper Smelter with an investment of US\$437.6 million, a solid foundation for the Group's business growth will be laid.



Central office building of NFCA in the green bush

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## BUSINESS REVIEW

The Group is a leading, fast growing and vertically integrated copper producer focusing on mining, ore processing, leaching, smelting and sales of copper, based in Zambia and DRC. The Group also produces copper-cobalt alloy and sulphuric acid. Sulphuric acid is the by-product generated during the blister copper smelting process.

The businesses of the Group are carried out mainly through the following companies: NFCA, Luanshya, CCS and SML located in Zambia as well as Huachin Leach and CNMC Huachin Mabende located in the DRC.

In 2017, blister copper and sulphuric acid produced by the Group amounted to 224,920 tonnes and 594,553 tonnes, representing an increase of 9.1% and 13.5% over last year, respectively. Copper cathodes produced amounted to 89,068 tonnes in total, representing an increase of 17.3% over last year. Revenue of the Group increased by 40.0% from US\$1,313.3 million in 2016 to US\$1,838.7 million in 2017.

## RESOURCES AND RESERVES

### Assumptions adopted for the annual update of resources and/or reserves

The same assumptions as those applied in the 2012 prospectus in accordance with the JORC Code were adopted for the annual update of resources and/or reserves in this annual report. Relevant updates were made according to our new exploration and based on the historical data used by technical consultants.

The main changes in resources and/or reserves were attributable to the adjustments arising from production wastage and intensified exploration.



Spray leaching operations in the No.1 stockpile of heap leaching system of Muliashi Project



Leach solution from spray leaching of Muliashi Project

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

As at 31 December 2017, the Group's mineral resources and mineral reserves reported in accordance with the JORC Code were as follows:

### (1) Resources

#### Chambishi Main Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	8.35	2.22%	-	-	8.46	2.21%	-	-
Indicated	6.71	2.32%	-	-	6.89	2.32%	-	-
Inferred	13.83	2.26%	-	-	13.85	2.26%	-	-

Note: In 2017, 370,000 tonnes of ore was mined from Chambishi Main Mine.

#### Chambishi West Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
<b>Oxide ore</b>								
Measured	4.55	1.97%	0.90%	-	4.51	1.94%	0.95%	-
Indicated	0.95	1.97%	0.99%	-	0.98	1.84%	0.90%	-
Inferred	0.31	1.87%	0.93%	-	0.32	2.08%	1.03%	-
<b>Sulphide Ore</b>								
Measured	11.40	2.14%	-	-	10.08	2.16%	-	-
Indicated	4.68	2.16%	-	-	6.61	2.14%	-	-
Inferred	6.95	2.08%	-	-	6.52	2.24%	-	-

Note: In 2017, 1.13 Mt of ore was mined from Chambishi West Mine.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Chambishi Southeast Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	16.93	2.38%	-	0.10%	1.95	1.90%	-	0.11%
Indicated	32.34	2.03%	-	0.11%	28.60	1.90%	-	0.11%
Inferred	96.40	1.80%	-	0.10%	117.78	1.88%	-	0.10%

Note: In 2017, no mining activity was carried out in Chambishi Southeast Mine.

### Baluba Center Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
<b>Oxide ore</b>								
Measured	-	-	-	-	-	-	-	-
Indicated	6.56	1.65%	1.14%	0.12%	6.56	1.65%	1.14%	0.12%
Inferred	1.62	1.70%	0.93%	0.10%	1.62	1.70%	0.93%	0.10%
<b>Sulphide Ore</b>								
Measured	4.05	2.20%	0.08%	0.16%	4.05	2.20%	0.08%	0.16%
Indicated	7.29	2.10%	0.08%	0.14%	7.29	2.10%	0.08%	0.14%
Inferred	3.62	1.47%	0.06%	0.09%	3.62	1.47%	0.06%	0.09%

Note: No exploration or mining activities were carried out in 2017.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Muliashi North Mine

JORC category	31 December 2017 Average grade				31 December 2016 Average grade			
	Ore (Mt)	Total	Oxide	Cobalt	Ore (Mt)	Total	Oxide	Cobalt
		copper	copper			copper	copper	
Measured	16.45	1.10%	0.44%	0.02%	19.99	1.12%	0.48%	0.02%
Indicated	15.25	1.01%	0.37%	0.02%	16.61	1.03%	0.40%	0.02%
Inferred	21.18	0.98%	0.32%	0.01%	21.18	1.01%	0.34%	0.02%

Note: Muliashi North Mine produced ore of 4.20 Mt in 2017.

### Muliashi South Mine

JORC category	31 December 2017 Average grade				31 December 2016 Average grade			
	Ore (Mt)	Total	Oxide	Cobalt	Ore (Mt)	Total	Oxide	Cobalt
		copper	copper			copper	copper	
<b>Oxide ore</b>								
Measured	0.96	2.05%	1.22%	0.01%	1.17	2.02%	1.23%	0.01%
Indicated	0.76	1.59%	0.66%	0.01%	0.87	1.59%	0.69%	0.01%
Inferred	0.17	1.25%	0.46%	0.02%	0.17	1.25%	0.46%	0.02%
<b>Sulphide Ore</b>								
Measured	-	-	-	-	-	-	-	-
Indicated	0.60	2.48%	-	-	0.60	2.48%	-	-
Inferred	0.08	2.50%	-	-	0.08	2.50%	-	-

Note: Muliashi South Mine produced ore of 310,000 tonnes in 2017.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Mashiba Mine

JORC category	31 December 2017				31 December 2016			
	Ore (Mt)	Average grade			Ore (Mt)	Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	3.17	1.89%	0.24%	0.02%	3.17	1.89%	0.24%	0.02%
Indicated	5.67	1.96%	0.22%	0.03%	5.67	1.96%	0.22%	0.03%
Inferred	4.97	1.67%	0.43%	0.04%	4.97	1.67%	0.43%	0.04%

Note: No exploration or mining activities were carried out in 2017.

### Baluba East Mine

JORC category	31 December 2017				31 December 2016			
	Ore (Mt)	Average grade			Ore (Mt)	Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	18.28	1.65%	0.07%	0.02%	6.40	1.90%	1.00%	0.02%
Indicated	2.60	1.26%	0.22%	0.03%	27.64	0.77%	0.31%	0.03%
Inferred	1.35	1.07%	0.17%	0.04%	3.27	1.03%	0.37%	0.04%

Note: Stripping activity commenced in 2017.

### Mwambashi Mine

JORC category	31 December 2017				31 December 2016			
	Ore (Mt)	Average grade			Ore (Mt)	Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	1.39	2.16%	1.05%	-	-	-	-	-
Indicated	4.88	1.96%	0.68%	-	6.99	2.02%	0.82%	-
Inferred	3.31	2.06%	0.48%	-	3.31	2.06%	0.48%	-

Note: Mwambashi Mine produced ore of 523,000 tonnes in 2017.



## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Samba Mine

JORC category	31 December 2017 Average grade				Ore (Mt)	31 December 2016 Average grade		
	Ore (Mt)	Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	-	-	-	-	-	-	-	-
Indicated	3.00	1.76%	-	-	-	-	-	-
Inferred	5.85	1.65%	-	-	-	-	-	-

### PE6307 Mine

JORC category	31 December 2017 Average grade				Ore (Mt)	31 December 2016 Average grade		
	Ore (Mt)	Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	-	-	-	-	-	-	-	-
Indicated	0.13	-	3.18%	-	-	-	-	-
Inferred	-	-	-	-	-	-	-	-

### PE5276-B5 Mine

JORC category	31 December 2017 Average grade				Ore (Mt)	31 December 2016 Average grade		
	Ore (Mt)	Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Measured	0.04	-	3.26%	-	-	-	-	-
Indicated	0.14	-	1.86%	-	-	-	-	-
Inferred	0.04	-	1.79%	-	-	-	-	-

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### (2) Reserves

#### Chambishi Main Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	4.26	1.68%	-	-	4.00	1.69%	-	-
Probable	2.88	1.61%	-	-	2.08	1.63%	-	-

#### Chambishi West Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
<b>Oxide ore</b>								
Proved	2.33	1.84%	-	-	2.12	1.80%	0.87%	-
Probable	1.14	1.85%	-	-	0.64	1.78%	0.81%	-
<b>Sulphide Ore</b>								
Proved	3.81	2.03%	-	-	4.24	2.02%	-	-
Probable	11.98	1.92%	-	-	8.31	1.96%	-	-

#### Chambishi Southeast Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	13.46	2.02%	-	0.09%	-	-	-	-
Probable	21.75	1.76%	-	0.10%	37.72	1.81%	-	0.08%

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Baluba Center Mine

JORC category	31 December 2017 Average grade				31 December 2016 Average grade			
	Ore (Mt)	Total copper	Oxide copper	Cobalt	Ore (Mt)	Total copper	Oxide copper	Cobalt
Proved	2.30	1.38%	0.06%	0.04%	2.30	1.39%	0.06%	0.04%
Probable	3.58	1.25%	0.11%	0.09%	3.58	1.24%	0.11%	0.09%

### Muliashi North Mine

JORC category	31 December 2017 Average grade				31 December 2016 Average grade			
	Ore (Mt)	Total copper	Oxide copper	Cobalt	Ore (Mt)	Total copper	Oxide copper	Cobalt
Proved	12.69	1.11%	0.43%	0.02%	16.18	1.13%	0.48%	0.02%
Probable	9.79	0.96%	0.37%	0.02%	11.12	0.99%	0.41%	0.02%



A bird view of the mining and processing project of Chambishi Southeast Mine

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Muliashi South Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	0.38	2.22%	1.61%	0.02%	0.68	2.21%	1.56%	0.02%
Probable	0.14	1.83%	1.25%	0.01%	0.26	1.72%	1.09%	0.01%

### Baluba East Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	6.38	1.81%	0.95%	0.02%	6.38	1.81%	0.95%	0.02%
Probable	27.57	0.73%	0.30%	0.03%	27.57	0.73%	0.30%	0.03%



Central auxiliary shaft of Chambishi West Mine

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Mashiba Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	2.66	1.35%	0.17%	-	2.66	1.35%	0.17%	-
Probable	4.76	1.40%	0.16%	-	4.76	1.40%	0.16%	-

### Mwambashi Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	6.38	2.02%	0.82%	-	6.99	2.02%	0.82%	-
Probable	3.31	2.06%	0.48%	-	3.31	2.06%	0.48%	-



Electrode workshop of Muliashi Project

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Samba Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	8.85	1.69%	-	-	-	-	-	-
Probable	3.32	1.57%	-	-	-	-	-	-

### PE6307 Mine

JORC category	Ore (Mt)	31 December 2017 Average grade			Ore (Mt)	31 December 2016 Average grade		
		Total copper	Oxide copper	Cobalt		Total copper	Oxide copper	Cobalt
Proved	-	-	-	-	-	-	-	-
Probable	0.74	-	3.18%	-	-	-	-	-



Settling pond for leaching

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

PE5276-B5 Mine

JORC category	31 December 2017 Average grade				31 December 2016 Average grade			
	Ore (Mt)	Total copper	Oxide copper	Cobalt	Ore (Mt)	Total copper	Oxide copper	Cobalt
Proved	-	-	-	-	-	-	-	-
Probable	0.04	-	2.35%	-	-	-	-	-

## PRODUCTION OVERVIEW

### NFCA

NFCA mainly operates two mines, namely the Chambishi Main Mine and the Chambishi West Mine and the respective ancillary processing plants.

In 2017, copper contained in copper concentrates produced by NFCA amounted to 29,699 tonnes, representing an increase of 10.5% over the same period in the previous year. Such increase was primarily attributable to the increase in ore processing volume and ore grade.

The Chambishi Main Mine and Chambishi West Mine of NFCA produced ore of 0.37 million tonnes and 1.13 million tonnes, respectively, during 2017.

### Luanshya

Luanshya operates three copper mines under production, namely the Baluba Center Mine, the Muliashi North Mine, the Muliashi South Mine, and also operates Muliashi Leach Plant.

Baluba Center Mine remained under maintenance and suspension of production in 2017 (for more details, please refer to the announcement of the Company dated 8 September 2015 on suspension of production of Baluba Center Mine and Slag Copper Recovery Project of Luanshya due to inadequate electricity supply). In particular, Slag Copper Recovery Project has resumed production since April 2017 and the total copper contained in copper concentrates produced amounted to 2,401 tonnes. Baluba Center Mine is preparing for resumption of production.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

The Muliashi Project produced 41,292 tonnes of copper cathode, representing an increase of 19.7% over the same period in the previous year, mainly attributable to the increase in production of heap leaching.

The Muliashi North Mine and the Muliashi South Mine produced ore of 4.20 million tonnes and 0.31 million tonnes respectively in 2017.

### CCS

CCS mainly operates the Chambishi Smelting Plant.

In 2017, blister copper and sulphuric acid produced by CCS amounted to 224,920 tonnes and 594,553 tonnes, representing increases of 9.1% and 13.5%, respectively, over the same period in the previous year. It was mainly attributable to the sufficient supply of raw materials and a higher production loading rate. In 2017, the Company dedicated to enhance the integration of material procurements and product sales in Zambia and DRC, as such, the production of blister copper and sulphuric acid increased steadily.

### SML

SML mainly operates Mwambashi Mine and the Chambishi Leach Plant.

Copper cathode produced by SML in 2017 amounted to 5,513 tonnes, representing an increase of 5.7% over the same period in the previous year. Processing plants under SML produced 2,625 tonnes of copper contained in copper concentrates in 2017, representing an increase of 67.7% over the same period in the previous year, mainly attributable to the guaranteed supply of raw materials as a result of the continuous supply from Mwambashi Mine in 2017 as well as the increase in the volumes of ore processed, the grade of sulphide ore and the recovery rate of copper metal.



CNMC Luanshya Muliashi Leach Plant at Night



## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### CNMC Huachin Mabende

CNMC Huachin Mabende produced 30,205 tonnes of copper cathodes, representing an increase of 25.2% over the same period in the previous year, mainly attributable to the sufficient supply of raw materials and the enhanced production organization and management.

### Huachin Leach

Huachin Leach accumulatively produced 12,059 tonnes of copper cathodes, remaining basically flat as compared to last year.

The table below presents the production volume of the products of the Group and the year-on-year growth for the periods indicated.

	<b>Production volume for 2017<sup>(1), (2)</sup> (Tonnes)</b>	Production volume for 2016 <sup>(1)</sup> (Tonnes)	Year-on-year growth (%)
Copper concentrate	<b>34,725</b>	28,436	22.1
Blister copper	<b>224,920</b>	206,217	9.1
Copper cathodes	<b>89,068</b>	75,903	17.3
Copper-cobalt alloy	<b>1,219</b>	–	–
Sulphuric acid	<b>594,553</b>	523,906	13.5

#### Notes:

- (1) The production volumes of all the products are on a contained-copper basis, except for sulphuric acid and copper-cobalt alloy.
- (2) The copper-cobalt alloy production contains approximately 373 tonnes of copper and approximately 123 tonnes of cobalt.



Panorama of copper smelting company

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### MINING EXPLORATION, MINING DEVELOPMENT AND ORE MINING ACTIVITIES

#### Exploration, development and mining cost of the Group

Expenses of exploration, development, and mining activities of the Group for the year ended 31 December 2017 are set out below:

	NFC A			Luanshya				SML	CNMHK		Total
	Chambishi Main Mine	Chambishi West Mine	Chambishi Southeast Mine	Baluba Center Sulphide Mine	Muliashi North Mine	Muliashi South Mine	Baluba East Mine	Mwambashi Mine	Huachin Leach PE6307 Mine	CNMC Huachin Mabende PE5276-B5 Mine	
<i>Unit: Million US dollars</i>											
<b>Exploration activities</b>											
Drilling and analysis	-	1.97	1.73	-	-	-	-	-	0.04	-	3.74
Others	-	-	0.02	-	-	-	-	-	0.20	-	0.22
<b>Sub-total</b>	<b>0.00</b>	<b>1.97</b>	<b>1.75</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.24</b>	<b>0.00</b>	<b>3.96</b>
<b>Development activities (including mine construction)</b>											
Purchases of assets and equipment	-	16.8	27.77	-	-	-	-	-	-	-	44.57
Civil work for construction of tunnels and roads	-	-	85.72	-	0.66	-	-	-	-	-	86.38
Staff cost	-	-	3.77	-	-	-	-	-	-	-	3.77
Others	-	1.41	55.01	-	-	0.02	5.66	-	-	-	62.10
<b>Sub-total</b>	<b>0.00</b>	<b>18.21</b>	<b>172.27</b>	<b>0.00</b>	<b>0.66</b>	<b>0.02</b>	<b>5.66</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>196.82</b>
<b>Mining activities (excluding ore processing)</b>											
Staff cost	1.02	3.13	-	-	0.2	-	-	0.27	-	0.52	5.14
Consumables	-	-	-	-	1.27	0.2	-	0.41	-	0.57	2.45
Fuel, electricity, water and others services	2.01	6.16	-	-	-	-	-	0.37	-	0.7	9.24
On-site and remote system management	-	-	-	-	-	-	-	-	-	-	0.00
Non-income taxes, royalties and other government expenses	-	-	-	-	-	-	-	-	-	-	0.00
Others	4.04	12.35	-	-	-	-	-	1.17	-	5.77	23.33
Sub-contracting charges	13.42	41.02	-	-	17.12	3.11	-	4.88	-	-	79.55
Depreciation	0.43	1.3	-	-	43.26	3.07	-	4.57	-	0.58	53.21
<b>Sub-total</b>	<b>20.92</b>	<b>63.96</b>	<b>0.00</b>	<b>0.00</b>	<b>61.85</b>	<b>6.38</b>	<b>0.00</b>	<b>11.67</b>	<b>0.00</b>	<b>8.14</b>	<b>172.92</b>

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Mining Exploration

During 2017, NFCA and Luanshya, subsidiaries of the Company, conducted mining exploration for production and exploration purposes, respectively. In particular:

In Chambishi Southeast Mine, 175 geological drilling holes in the pit were completed with 14,862m drilled, of which, 98 drilling holes were completed with 8,246m drilled in North First Quarry, and 77 drilling holes were completed with 6,617m drilled in South First Quarry. 5 surface drilling holes were completed with 3,352m drilled, and 66 drilling holes in the pit were completed with 8,503m drilled in Chambishi West Mine.

Luanshya conducted exploration, drilling and platform trenches. In particular, supplemental exploration was conducted at Baluba East Mine and the near surface oxide mine located between Muliashi South and West Mines and Mashiba Mine, and preliminary exploration was conducted at Baluba West Mine, during which 42 surface drilling holes with the drilling footage of 3,028.53m were completed. At Muliashi North Strip Mine and Muliashi South Strip Mine, 28 platform trenches for production and exploration purposes were completed with a total length of 1,896m and a total capacity of 928m<sup>3</sup>.

### Mining Development

For details of mining development please refer to “Projects Under Progress” on pages 36 to 38.



CNMC Luanshya Processing Plant at Dusk

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## Mining Activities

For details of mining activities, please refer to “Production Overview” on pages 30 to 32.

## Infrastructure projects, subcontracting arrangements and procurement of equipment

During 2017, the new contracts entered into by the Group are as follows:

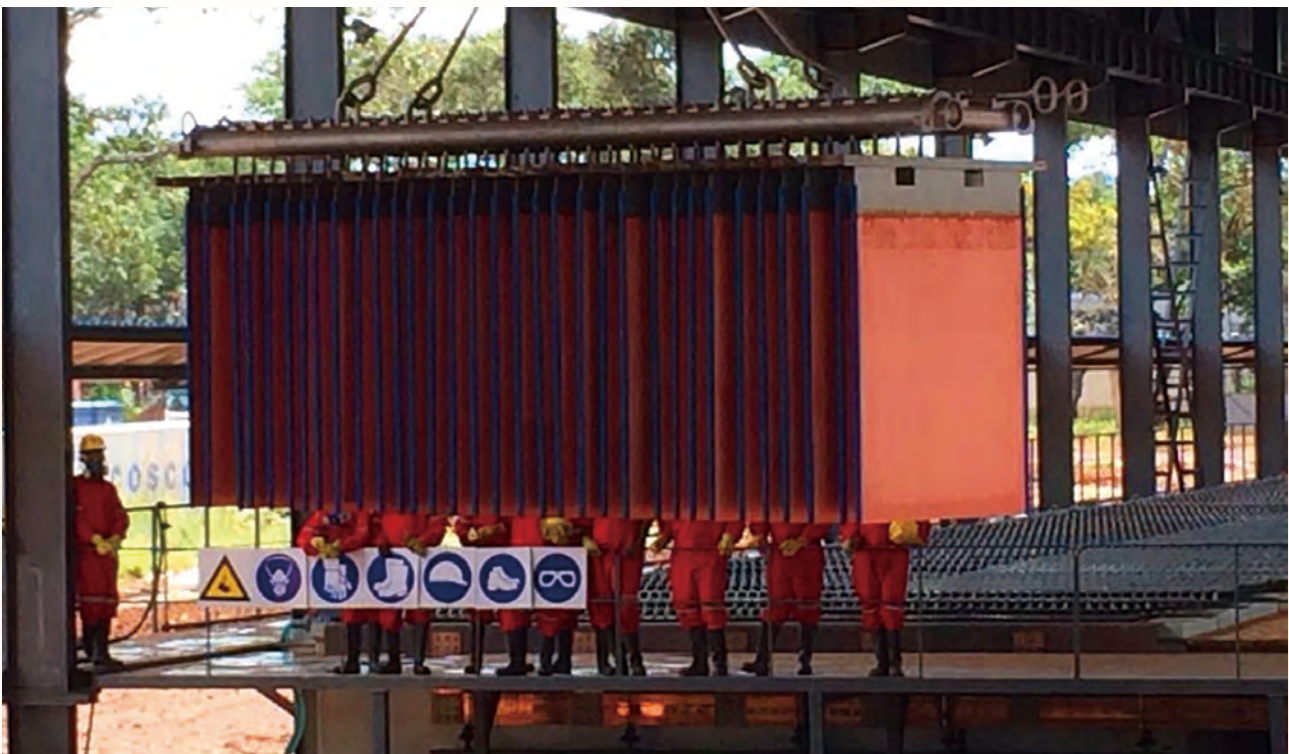
### *NFCA*

The new infrastructure project contracts executed in 2017 amounted to approximately US\$99.4 million.

No subcontracting arrangements were entered into by the Group during 2017\*.

During 2017, contracts which amounted to approximately US\$110.2 million were entered into by the Group for purchase of equipment related to mining exploration, mining development and mining activities, including equipment for mining, transportation, processing, drainage, soil discharge, electricity, laboratory, and etc.

\* Subcontracting arrangement refers to an arrangement made between one party to a contract and a third party, pursuant to which the third party shall fulfill all or part of the obligation of that party under the said contract. For example, it refers to the circumstance where the Group wins a project as a contractor and then transfers the entire project or subcontracts in part the project to a third party.



Workers of Mabende Project hoisting copper cathode products

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### PROJECTS UNDER PROGRESS

#### NFCA

##### *The Integrating Exploration and Construction Project of the Chambishi Southeast Mine*

This project is currently under development and is one of the key development mine projects of the Company with a designed ore processing capacity of 3,300,000 tonnes per annum and a production capacity of approximately 63,000 tonnes of copper contained in copper concentrates per annum and approximately 1,000 tonnes of cobalt contained in cobalt hydroxides per annum. Its aggregate planned investments amounted to US\$830 million. In 2017, underground and overground constructions of the project have fully commenced and progressed smoothly. Since the commencement of construction, its accumulative drilling volume of wells and tunnels was 29,678.3m/616,387.2m<sup>3</sup> by the end of 2017. During 2017, it drilled 175 holes in the pit with the drilling depth of 14,863m. The drilling footage of the southern and northern mining areas was 24,219.8m in total since the commencement of construction. In 2017, the completed investments for the year amounted to US\$86.4 million. As at the end of 2017, an accumulative project investment of US\$518.97 million was made representing approximately 62.5% of the total planned investment. The project is expected to be completed in the third quarter of 2018.



Surface mine of Muliashi Project

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### SML

#### *Mwambashi Strip Mine project*

This project comprises a strip mine with designed capacity of 600,000 tonnes of ores per annum and a processing plant with a daily capacity of 2,000 tonnes. The construction commenced in September 2013. The total investment amount is US\$71.6 million. Since May 2015, the strip mine started trial production with parallel arrangement of stripping and mining and it completed construction and commenced formal production at the end of June 2016. In line with the strip mine with an annual capacity of 600,000 tonnes of ores, a processing plant with a daily capacity of 2,000 tonnes will be built by reconstructing and expanding the original processing plant with a daily capacity of 1,000 tonnes with a total planned investment amount of US\$8.8 million. As of 31 December 2017, an accumulative investment of US\$4.8623 million had been completed, representing 55.0% of the total planned investment. Commencing in April 2016, such reconstruction and expansion project was completed and put into single commissioning in late September 2017. It was put into the pilot linkage production at the end of September 2017 and the pilot feeding operation on 13 October 2017, respectively.

### CCS

#### *Tailings Pond Phase II Project*

The tailings pond project phase II will be used to support a smelting project phase II with an output of 250,000 tonnes. With a total planned investment of US\$10.00 million, such project commenced on 1 May 2017 and would last for 15 months. Three rolled earth-rock dams would be built on three sides with the eastern dam being shared with the tailings pond phase I. The dam top elevation and highest dam height was 1,250m and 20m, respectively. It covered an area of 350,000m<sup>2</sup> with a capacity of 3,000,000m<sup>3</sup>, which was sufficient for stockpiling for a period of 10 years. As of 31 December 2017, the construction of the main part and an accumulative investment amount of US\$4.8 million had been completed, representing 48.3% of the total planned investment.

#### *The Liquid Sulphur Dioxide Project*

This project was planned to produce liquid sulphur dioxide with smelting by-products and existing public facilities and to achieve a scale of an annual output of 16,500 tonnes of liquid sulphur dioxide with a proposed aggregate investment of US\$9.6 million. As approved by the Board in September 2016, CCS conducted an economic feasibility study on this project. Having taken into consideration the better sulfuric acid market in the country where the operation is located and the decrease in the market price of liquid sulphur dioxide, the Company decided with prudence to call a halt to this project.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### **Lualaba Copper Smelter**

#### *Blister Copper Smelting Project*

A copper concentrate (dry) smelting project with an annual capacity of 400,000 tonnes would be constructed to produce approximately 118,000 tonnes of blister copper per annum. With an investment budget of US\$437.6 million, the construction of such project was scheduled to commence on 28 March 2018 and would last for two years. By the end of 2017, the land levelling in the living quarters within the plant progressed smoothly, the road subgrade project outside the plant had been completed and various civil construction preparations had been ready for the commencement of construction.

#### *Cobalt Recycling System Project*

This project was a sub-system of the copper concentrate (dry) and blister copper smelting project with an annual capacity of 400,000 tonnes. It would produce 10,000 tonnes of copper-cobalt alloy (approximately 2,000 tonnes of cobalt) per annum and had an investment budget of US\$33.1 million. Such project will be constructed along with the Blister Copper Smelting Project.

### **Kambove Mining**

#### *Kambove Exploration Project*

The Company had obtained an exploration right covering 3,058.2 hectares and an abandonment right covering 509.7 hectares, and had completed the exploration activities concerning the bottom and walls of the open pit of the main orebody of Kambove as well as the field exploration by means of drilling holes. In addition, MSES mineral deposit, KIBINDJI tailings and the western mine are currently carrying out further exploration.

In addition, the Group conducted research on the development of new mining exploration and mining projects in the Zambia and DRC to actively expand its resource reserves and enhance its smelting production capacity, so as to secure the continuous growth of the Company.

## HUMAN RESOURCES

As of 31 December 2017, the Group employed a total of 5,612 employees (as of 31 December 2016: 5,651 employees), which comprised 596 foreign and 5,016 local employees in Zambia and the DRC. Employees' remuneration was determined by the Group based on their performance, experience and the prevailing market practice. For the year ended 31 December 2017, the total cost of employees reflected in the consolidated statement of profit or loss and other comprehensive income amounted to approximately US\$71.3 million (2016: US\$67.2 million).

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## 2018 OUTLOOK

In 2018, the US and the PRC, the world's top two economies each maintained steady and positive economic growth, despite plenty of challenges faced by the global economy. After a six-year-long period of profound adjustments in the bulk commodity market, the prices of base metals such as copper started to rebound. With an upward trend in the economy and a more balanced supply-demand, the copper price remains promising in the long-term.

In 2018, the Group will continue to follow its own development strategy. It will keep increasing investments in geological exploration and development, pay high attention to and more efforts in expanding the exploration areas, as well as exploring the surrounding areas and in the depth of the existing mines, especially in the region of Kambove, DRC. Meanwhile, the Group will continue to identify suitable acquisition targets in regions with rich copper resources such as Zambia and the DRC, with an aim to increase the Group's resources.

The Group will continue to improve the operational efficiency of its existing mines and smelters through optimizing the internal value chain management, promoting the integration construction of production, supply and marketing in the same region, intensifying cost control and other modern management methods, so as to continuously enhance the Group's profitability. The Group will continue to pay due efforts in its mining activities in underground mines (including Chambishi Main Mine and Chambishi West Mine in Zambia) and the Muliashi Strip Mine and Mwambashi Strip Mine Project in Zambia, and Silver Back Resources (SBR) Strip Mine in DRC, so as to increase the production volume of copper concentrate and oxide ore from its own mines. Great efforts will be put in the management of the technological processes of smelting of CCS, Muliashi Leach Plant and SML in Zambia, and Huachin Leach and CNMC Huachin Mabende in DRC so as to promote the standardised production and improve the output and quality of blister copper, copper cathode, sulphuric acid and cobalt, with a view to further increasing the operating efficiency and profit from the existing production capacity.

The Group will keep its emphasis on the construction of key projects and continue to expedite the exploration in Chambishi Southeast Mine with a view to ensuring the commencement of operation in the third quarter of 2018. It will also concentrate on the Blister Copper Smelting Project in DRC and speed up the exploration of Kambove Mining, in hope of enhancing efficiency and providing new production sources for the Company.

In an effort to consistently follow the development philosophy of "innovative, coordinated, green, open and shared", the Group will constantly improve the working environment, ensure production safety and efficiency, and bring good returns to the shareholders while committing itself to fulfilling its corporate social responsibility, according to the requirements of the Environmental, Social and Governance Reporting Guide.



# DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES

## BOARD OF DIRECTORS

Our Board of Directors is responsible for the management and conduct of our business and consists of nine Directors, including five executive Directors, one non-executive Director and three independent non-executive Directors. The table below sets forth certain information in respect of the members of the Board of Directors:

Name	Age	Position/Title
Xinghu Tao	60	Chairman and Executive Director
Diyong Yan	53	Vice Chairman and Non-executive Director
Lin Zhang (appointed on 19 May 2017)	55	Executive Director and President
Chunlai Wang	57	Executive Director and Vice President
Wei Fan	43	Executive Director and Vice President
Kaishou Xie	62	Executive Director and Vice President
Xingeng Luo ( <i>Note</i> ) (resigned on 19 May 2017)	55	Executive Director and Vice President
Chuanyao Sun	73	Independent Non-executive Director
Jingwei Liu	50	Independent Non-executive Director
Huanfei Guan	60	Independent Non-executive Director

*Note:* For the details of Xingeng Luo's biography, please refer to the section headed "Directors and Senior Management Biographies" in 2016 annual report.

**Xinghu Tao (陶星虎)**, aged 60, is the chairman and executive Director of our Company and was appointed to our Board on 18 July 2011 and appointed as chairman on 20 April 2015. He has been the vice general manager of CNMC since November 2007. Mr. Tao currently also serves as the chairman of NFCA, CCS, SML, Luanshya, Lualaba Copper Smelter, China Nonferrous Mining Hong Kong Holdings Limited, China Nonferrous Mining Hong Kong Investment Limited (中色礦業香港投資有限公司) and MPongwe, the vice chairman of ZCCZ and a director of China Nonferrous Mining Development Limited and China Nonferrous Mining Holdings Limited. Mr. Tao has 36 years of experience in the mining industry. He became the general manager of ZCCZ and NFCA in June 2006 and September 2002, respectively. Mr. Tao worked in Zhongtiaoshan Nonferrous Metals Group Co., Ltd. (中條山有色金屬集團有限公司) ("Zhongtiaoshan") from 1982 to 2002, during which he also served as the mine manager of Tongkuangyu Mine and the general manager and director of Zhongtiaoshan, etc.. Mr. Tao graduated from the Beijing Steel and Iron Institute (北京鋼鐵學院) (currently known as the University of Science and Technology Beijing (北京科技大學)) in 1982 with a major in mining engineering. He completed graduate studies in economic management from the Party School of the Central Committee of the Communist Party of China (中共中央黨校) in January 2005. Save as disclosed above, Mr. Tao was recognised as a State Council Special Allowance Expert in 2004 and was recognised as a Senior Mining Engineer (professor level) in 1999.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

**Diyong Yan (嚴弟勇)**, aged 53, is the vice chairman and a non-executive Director of our Company and was appointed to our Board on 20 April 2015. Mr. Yan served as a deputy director of the Technical Cadres Division of the Human Resources Department of China National Nonferrous Metals Industry Corporation, director of the General Division of the Personnel Office (Standing Committee) of State Bureau of Nonferrous Metal Industry, deputy officer of Taiwan Affairs Office, officer of External Affairs Office and manager of Human Resources Department of China Nonferrous Metal Mining and Construction Group Co Ltd., assistant to general manager, manager of Human Resources Department, officer of External Affairs Office of China Nonferrous Metal Mining and Construction Group Co Ltd., assistant to general manager of CNMC and deputy general manager of CNMC. Mr. Yan has 31 years of experience in non-ferrous metal industry and acted as the chief organiser for the listing of the Company. He has extensive and practical experience in corporate governance and operation of listed companies. Mr. Yan obtained the bachelor's degree from Central South University of Technology (中南工業大學) in 1987 and master's degree in Engineering Management in 1996.

**Lin Zhang (張麟)**, aged 55, is an executive Director and president of the Company and joined the Board upon appointment on 19 May 2017. Mr. Zhang currently also serves as a director of China Nonferrous Mining Holdings Limited, China Nonferrous Mining Hong Kong Investment Limited and Lualaba Copper Smelter. Mr. Zhang obtained a bachelor's degree in ore processing engineering from Central South University of Technology in 1986 and a master's degree in mining engineering in 2003 and a doctorate degree in mineral processing engineering in 2008 from the Central South University (中南大學). Mr. Zhang was accredited as a senior engineer in mineral processing by the Employees Reform Office of Hubei Province in April 2004. Mr. Zhang served as the chairman and an executive director of China Daye Non-Ferrous Metals Mining Limited (a company listed on The Stock Exchange of Hong Kong Limited, Stock Code: 00661) from March 2012 to May 2017. Mr. Zhang has 32 years of experience in mining and has extensive and practical experience in the operation of listed group companies.

**Chunlai Wang (王春來)**, aged 57, is an executive Director and a vice president of our Company primarily in charge of Luanshya. He was appointed to our Board on 12 April 2012. Mr. Wang has 37 years of experience in the mining industry. He currently is the general manager of Luanshya. He served as the deputy general manager of NFCA from 2005 to 2009 and became its executive director in 2007. He was transferred from the managing director of NFCA to the managing director of Luanshya on 24 March 2016. From 1981 to 2005, Mr. Wang worked in the Dongguashan Copper Mine of Tongling Nonferrous Metals Group Co., Ltd. (銅陵有色金屬集團股份有限公司) (a company listed on the Shenzhen Stock Exchange, SZ000630) as a mining engineer, assistant to the mine manager, deputy mine manager and mine manager. Mr. Wang graduated from Anhui Metallurgy College (安徽冶金專科學校) in 1981 majoring in mining and obtained a Master of Business Administration degree from the School of Business of Nanjing University (南京大學工商管理學院) in 2005. Mr. Wang was recognised as a State Council Special Allowance Expert in 2002 and was recognised as a Senior Mining Engineer (professor level) in 2007.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

**Wei Fan (范巍)**, aged 43, is an executive Director and a vice president of our Company primarily in charge of CCS and Lualaba Copper Smelter. He was appointed to our Board on 28 July 2015. Mr. Fan concurrently serves as a director and the general manager of both CCS and Lualaba Copper Smelter. From June 2006 to February 2012, Mr. Fan successively served as an assistant to general manager and as deputy general manager in CCS. From April 2011 to December 2014, Mr. Fan served as deputy officer of production department in 雲南銅業集團有限公司 (Yunnan Copper Industry (Group) Co., Ltd\*), a substantial shareholder of CCS and the holding company of Yunnan Copper). From October 2001 to June 2006 and from April 2013 to July 2015, Mr. Fan also successively served as senior engineer, officer and manager of Sale & Operation Management Department of 雲南銅業股份有限公司 (Yunnan Copper Industry Co., Ltd\*) (“Yunnan Copper”, a company listed on the Shenzhen Stock Exchange, Stock code: SZ00878). Mr. Fan has more than 17 years of experience in the metal industry. He has extensive and practical experience in the operation of listed group companies. Mr. Fan obtained a master’s degree in business administration from Kunming University of Science and Technology in 2007.

**Kaishou Xie (謝開壽)**, aged 62, is an executive Director and a vice president of the Company primarily in charge of Kambove Mining. He was appointed to the Board on 12 April 2012 and concurrently serves as the chairman of the board and general manager of Kambove Mining. Mr. Xie served as the general manager of SML and Chambishi Sulphuric Acid Plant Zambia Limited\* (贊比亞謙比希硫磺制酸公司) since 2006 and 2008 respectively. He served as an executive director and the general manager of SML and Chambishi Sulphuric Acid Plant Zambia Limited\* from 2008 to 2012, and the chairman of the boards of directors in Huachin Leach and CNMC Huachin Mabende from 2012 to 2016. On 24 March 2016, Mr. Xie resigned as a director and the general manager of SML to serve as a director and the general manager of CNMC DRC Company and China Nonferrous Mining Hong Kong Holdings Limited. Mr. Kaishou Xie resigned as a director and the general manager of China Nonferrous Mining Hong Kong Holdings Limited on 21 March 2017 and as the chairman of the boards of directors of Huachin Leach and CNMC Huachin Mabende on 14 April 2017. He served as director and general manager of Kunming Jinsharen Chemical Co., Ltd. (昆明金沙人化工有限公司) from 2003 to 2006, the workshop director, assistant to the factory director, vice factory director and chief engineer of Dongchuan Aluminum Factory (東川鋁廠) from 1991 to 1998, and the deputy general manager of Dongchuan Aluminum Co., Ltd. (東川鋁業有限公司) from 1998 to 2003. He worked in the Tangdan Mine of Dongchuan Copper Mines Administration (東川礦務局) from 1972 to 1991. Mr. Xie graduated from the Southwest University of Science and Technology (西南科技大學) with a degree in law.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

**Chuanyao Sun (孫傳堯)**, aged 73, is an independent non-executive Director of the Company, the chairman of the Nomination Committee and a member of the Compliance Committee and the Remuneration Committee and was appointed to join the Board on 27 April 2012. He has 49 years of experience in the mining industry. Mr. Sun resigned on 1 March 2018, 27 February 2018 and 6 March 2018 as an independent non-executive director of Jiamusi Electric Machine Company Limited (哈爾濱電氣集團佳木斯電機股份有限公司) (a company listed on the Shenzhen Stock Exchange, SZ000922), China Aluminum International Engineering Corporation Limited (中鋁國際工程股份有限公司) (a company listed on the Hong Kong Stock Exchange, HK02068) and Jiangxi Copper Company Limited (HK00358), respectively. Mr. Sun joined the Beijing General Research Institute of Mining and Metallurgy (北京礦冶研究總院) ("BGRIMM") in 1981 and served as its dean from February 1988 to February 2007. He worked at the Xinjiang Keketuohai Ore Processing Plant (新疆可可托海礦業加工廠) from December 1968 and became its deputy factory director in October 1976. Mr. Sun graduated from Northeastern Institute of Technology (東北工學院) (currently known as Northeastern University (東北大學)) in 1968 and was awarded a master degree in BGRIMM (北京礦冶研究總院) with a major in ore processing in 1981. Mr. Sun is an fellow of Chinese Academy of Engineering (中國工程院) and St Petersburg Academy of Engineering and Science in Russia (俄羅斯聖彼得堡工程科學院), a council member of International Council on Mineral Processing (國際礦物加工大會理事會), a deputy director of Committee of Experts of China Nonferrous Metal Industry Association (中國有色金屬工業協會專家委員會), the director of the Ore Processing Academic Committee of the Nonferrous Metals Society of China (中國有色金屬學會選礦學術委員會) and the director of Key Laboratory of Mineral Processing of the State (國家礦物加工重點實驗室).

**Jingwei Liu (劉景偉)**, aged 50, is an independent non-executive Director of our Company, the chairman of the Audit Committee and a member of the Nomination Committee, and was appointed to our Board on 27 April 2012. He is a senior partner of Shinewing Certified Public Accountants (信永中和會計師事務所). He currently serves as a non-executive director of Shougang Concord International Enterprises Company Limited (首長國際企業有限公司) (a company listed on the the Main Board of Hong Kong Stock Exchange, HK00697), an independent director of Shanghai Yaohua Pilkington Glass Group Co., Ltd. (上海耀皮玻璃集團股份有限公司) (a company listed on the Shanghai Stock Exchange (the "SSE"), SH600819), and an independent director of Guiyang Longmaster Information & Technology Co., Ltd. (貴陽朗瑪信息技術股份有限公司) (a company listed on the Shenzhen Stock Exchange (the "SZSE"), SZ300288). Mr. Liu previously served as a director and general manager of Beijing Jincheng Gardening Co., Ltd. (北京金城園林公司). He has also served as independent director of Jinxi Axle Co., Ltd. (晉西車軸股份有限公司) (a company listed on the SSE, SH600495), Chongqing Fuling Zhacai Group Co., Ltd. (重慶市涪陵榨菜集團股份有限公司) (a company listed on the SZSE, SZ002507), Ningxia Orient Tantalum Industry Co., Ltd. (寧夏東方鉭業股份有限公司) (a company listed on the SZSE, SZ000962), and Xuzhou Kerong Environmental Resources Co., Ltd. (a company listed on the SZSE, SZ300152). Mr. Liu graduated from the School of Economics of Beijing Forestry University (北京林業大學經濟管理學院) in 1989 and from Shanghai Advanced Institute of Finance with a master's degree in 2016. He is a PRC Certified Public Accountant and a member of the registration committee of the Beijing Institute of Certified Public Accountants.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

**Huanfei Guan (關浣非)**, aged 60, is an independent non-executive Director of our Company, chairman of the Remuneration Committee, a member of the Audit Committee and the Compliance Committee, and was appointed to our Board on 28 August 2014. Mr. Guan has been a part-time researcher of the Insurance Research Centre of Fudan University since 2004. He has also been appointed as a part-time lecturer of professional degree of Fudan University since 2013. Mr. Guan has extensive experience in the finance and insurance industry in Hong Kong and the Mainland China. He served various senior managerial positions in People's Insurance Company of China (Jilin Branch) (中國人民保險公司吉林省分公司), Hong Kong and Macao Regional Office of China Insurance Group (中國保險港澳管理處), Ming An Insurance Company (Hong Kong) Limited (香港民安保險有限公司) and China Pacific Insurance Co., (HK) Ltd. (中國太平洋保險(香港)有限公司). Mr. Guan also held offices at the Bank of Communications, including the deputy chairman of the risk asset management committee (風險資產管理委員會副主任委員), deputy chairman of credit asset management committee (信貸資產管理委員會副主任委員), chairman of loan verification committee (貸款審查委員會主任委員), deputy general manager of the Bank of Communications Hong Kong Branch, the director of Bank of Communications Trustee Limited (交通銀行信託有限公司), the chairman and chief executive of China BOCOM Insurance Co., Ltd. (中國交銀保險有限公司) and an executive director and general manager of BoCommLife Insurance Company Limited. Mr. Guan is also an economic and technical consultant of Jilin Provincial Government (吉林省人民政府經濟技術顧問). Mr. Guan is now an independent non-executive director of Sunwah Kingsway Capital Holdings Limited and China Shandong Hi-Speed Financial Group Limited, and a non-executive director of Ping An Securities Group (Holdings) Limited (shares of those companies are listed on the main board of the Hong Kong Stock Exchange). He has been appointed as the chairman emeritus of Culturecom Holdings Limited (a company listed in Hong Kong) and the chairman of the board of directors of UCAN.COM Group Limited, a subsidiary of Culturecom Holdings Limited, since July 2013. Mr. Guan currently also serves as a director of Wing Lung Insurance Company Limited and K & R International Limited. Mr. Guan was an independent non-executive director of Silver Base Group Holdings Limited (the shares of which are listed on the main board of the Hong Kong Stock Exchange) for the period from March 2008 to January 2011. He was re-designated as an executive director and president of that company from January 2011 to December 2012. He has been engaged as a senior consultant of that company since January 2013. Mr. Guan was an executive director of CCT Land Holdings Limited (the shares of which are listed on the main board of the Hong Kong Stock Exchange) for the period from May 2015 to September 2017. Mr. Guan obtained a doctor's degree in Economics in 2000 from Wuhan University and was a post-doctoral researcher in Theoretical Economics in Fudan University from 2000 to 2002.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

### SENIOR MANAGEMENT

Lin Zhang (張麟) is the president of our Company. Please refer to the paragraph headed “Board of Directors” for his biographical background.

Chunlai Wang (王春來) is a vice president of our Company primarily in charge of Luanshya. Please refer to the paragraph headed “Board of Directors” for his biographical background.

Wei Fan (范巍) is a vice president of our Company primarily in charge of CCS and Lualaba Copper Smelter. Please refer to the paragraph headed “Board of Directors” for his biographical background.

Kaishou Xie (謝開壽) is a vice president of our Company primarily in charge of Kambove Mining. Please refer to the paragraph headed “Board of Directors” for his biographical background.

**Jinjun Zhang (張晉軍)**, aged 49, is a vice president of the Company. He was appointed and joined the senior management of the Company on 24 March 2016 and was in charge of NFCA. He is the current director and general manager of NFCA and the director of SML. Mr. Zhang has 29 years of experience in the mining industry and acted as the mining manager and the vice general manager of NFCA in 2009 and 2015, respectively, and was also appointed as the executive director of NFCA. He joined NFCA to act as the manager of production technology department from 2006 to 2009. From 1988 to 2006, Mr. Zhang worked in the Hujiayu Copper Mine under Zhongtiaoshan Nonferrous Metals Group Co., Ltd. and successively acted as the technology director, pit director and the mining manager assistant. Mr. Zhang graduated from Changsha Non-ferrous College (長沙有色金屬專科學校) in 1988 with a major in mining and obtained a master degree of mining engineering in University of Science & Technology Beijing in 2015. Mr. Zhang was recognised as a Senior Mining Engineer (professor level) in 2015.

**Peiwen Zhang (張培文)**, aged 50, is a vice president of the Company who is in charge of SML. He was appointed and joined the senior management of the Company on 24 March 2016 and currently acts as a director and the general manager of SML. He resigned as a director of CNMC Huachin Mabende in June 2017. Mr. Zhang has 28 years of experience in the mining industry and acted as the vice general manager of SML from 2005 to 2016. In 2004, he was appointed as the technology director of Kunming Rui Yuan Ju Corporation (昆明瑞源巨公司), the 2,000-tonne hydrometallurgical plant of Yunnan Jinsha Corporation (雲南金沙公司). From 2001 to 2004, he acted as the vice director of the scientific research institute of Yunnan Jinsha Mining Co., Ltd.. From 1995 to 2000, he has successively acted as the vice director, director, the assistant to the head of and deputy head of the metallurgical research institute under the scientific research institute of former Yunnan Dongchuan Copper Mines Administration (雲南東川礦務局) and the director of 500-tonne hydrometallurgical plant. Mr. Zhang graduated from Changsha Non-ferrous College (長沙有色金屬專科學校) in 1989 with a major in non-ferrous metal metallurgy and was recognised as a metallurgical engineer in 1998.

## DIRECTORS AND SENIOR MANAGEMENT BIOGRAPHIES (CONTINUED)

**Aibin Hu (胡愛斌)**, aged 49, is the chief compliance officer and joint company secretary of our Company with over 20 years of experience in the mining industry. He currently serves as a director of CNMHKI and CNMH. He was appointed and joined the senior management of the Company on 27 April 2012. Mr. Hu joined Luanshya in November 2009 and served as the board secretary and assistant to the general manager of Luanshya. He served as the deputy manager of the Administrative Department of NFCA from January 2007 to October 2009. Mr. Hu served as the office secretary of Tongling Nonferrous Metals Group Holdings Co., Ltd. (安徽銅陵有色金屬集團控股公司) from June 2001 to October 2003 and was seconded to the reorganisation group of the SASAC from November 2003 to December 2006. Mr. Hu graduated from Anhui Normal University (安徽師範大學) with a bachelor's degree in science in 1994 and received a Master of Business Administration degree from Beijing Jiaotong University (北京交通大學) in 2008. Mr. Hu is a qualified enterprise legal adviser in the PRC and a senior economist and concurrently serves as the enterprise legal adviser.

**Xinghua Liu (劉興華)**, aged 49, is the chief financial officer of our Company. He currently serves as a director of CNMHKI. He has 26 years of experience in financial management. Mr. Liu joined China 15th Metallurgical Construction Group Company Limited ("15th MCC") (中國十五冶金建設有限公司) (a subsidiary of CNMC) in 1992 and once served as the financial manager of the Fuzhou management team of the 15th MCC. He joined NFC Africa Mining PLC (a subsidiary of our Company) in 2002 and had successively served as the deputy manager of its Financial Department, the manager of its Financial Department, the deputy CFO and assistant to CEO. He joined our Company in 2016 and has served as chief financial officer ever since. Mr. Liu graduated from North China University of Technology with a bachelor degree in accounting in 1992, and obtained a master degree of engineering from University of Science and Technology Beijing in 2016. He also obtained the title of senior accountant in 2002.

### JOINT COMPANY SECRETARIES

**Aibin Hu (胡愛斌)**, aged 49, is the joint company secretary and chief compliance officer of our Company. Please refer to the paragraph headed "Senior Management" above for his biographical background.

**Tin Wai Lee (李天維)**, aged 42, was appointed as a joint company secretary on 15 December 2013. Mr. Lee is a member of the Hong Kong Institute of Certified Public Accountants and has over 11 years of experience in auditing, taxation and company secretarial affairs. He is also a partner of a local accounting firm.

# CORPORATE GOVERNANCE REPORT

## CORPORATE GOVERNANCE PRACTICES

The Board of Directors and the management of the Group are committed to achieving and maintaining high standards of corporate governance, which they consider to be critical in safeguarding the integrity of the Company's operations and maintaining investors' trust in the Company. Except for deviation from code provision A.2.1 of the CG Code, which is explained in paragraph headed "Chairman and Chief Executive" below, none of the Directors is aware of any information which would reasonably indicate that the Company has not, for the year ended 31 December 2017, complied with the code provisions as set out in the CG Code.

The Company has applied the principles of the CG Code to its corporate governance structure.

## MODEL CODE REGARDING SECURITIES TRANSACTIONS BY DIRECTORS

The Company has adopted a code of conduct regarding securities transactions by directors on terms no less exacting than the required standard of dealings as set out in the Model Code as contained in Appendix 10 of the Listing Rules.

The Company had made specific enquiry to all the Directors and confirmed that all of them have complied with the Model Code for the year ended 31 December 2017.

## BOARD OF DIRECTORS

As at 31 December 2017, the Board comprised five executive Directors, namely Mr. Xinghu Tao, Mr. Lin Zhang, Mr. Chunlai Wang, Mr. Wei Fan and Mr. Kaishou Xie; one non-executive Director, namely Mr. Diyong Yan; and three independent non-executive Directors, namely Mr. Chuanyao Sun, Mr. Jingwei Liu and Mr. Huanfei Guan. Mr. Xinghu Tao is the chairman of the Board.

Save as disclosed in this annual report, to the best knowledge of the Company, there are no financial, business, family or other material relationships among members of the Board.



## CORPORATE GOVERNANCE REPORT (CONTINUED)

For the year ended 31 December 2017, all the members of the Board and board committees actively attended relevant meetings. The attendances at the meetings of the Board and its committees and the annual general meeting held in person or through other electronic means of communication are as follows:

### Number of meetings held for the year ended 31 December 2017

	Board	Audit Committee	Nomination Committee	Remuneration Committee	Compliance Committee	AGM
Mr. Xinghu Tao	4/4	N/A	N/A	N/A	2/2	1/1
Mr. Diyong Yan	3/4	2/2	1/1	1/1	N/A	1/1
Mr. Lin Zhang <i>(appointed on 19 May 2017)</i>	2/3	N/A	N/A	N/A	N/A	1/1
Mr. Chunlai Wang	3/4	N/A	N/A	N/A	N/A	1/1
Mr. Wei Fan	4/4	N/A	N/A	N/A	N/A	1/1
Mr. Kaishou Xie	4/4	N/A	N/A	N/A	N/A	1/1
Mr. Xingeng Luo <i>(resigned on 19 May 2017)</i>	1/1	N/A	N/A	N/A	N/A	N/A
Mr. Chuanyao Sun	4/4	N/A	1/1	1/1	2/2	1/1
Mr. Jingwei Liu	4/4	2/2	1/1	N/A	N/A	1/1
Mr. Huanfei Guan	4/4	2/2	N/A	1/1	2/2	1/1

The Board shall meet at least four times a year at approximately quarterly intervals. The Audit Committee shall meet not less than twice a year to review and discuss the interim and annual consolidated financial statements. The Compliance Committee shall meet at least two times a year to review the Company's internal control policies and corporate management. Both of the Nomination Committee and the Remuneration Committee shall meet at least once a year. In addition, the chairman of the Board shall meet with non-executive Directors (including independent non-executive Directors) without the attendance of executive Directors at least once a year. The Company was in compliance with all the requirements in respect of meetings of Board committee throughout the year of 2017.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

The Board is responsible for leading, supervising and managing the Company. Its main duties include but are not limited to: (i) formulating and reviewing the corporate governance policies and practice of the Company; (ii) reviewing and inspecting trainings and continuing development of Directors and senior management; (iii) reviewing and monitoring relevant policies and rules of the Company in relation to compliance with laws and regulations; (iv) developing, reviewing and monitoring the code of conduct and compliance manual applicable to employees and directors; and (v) reviewing the Company's compliance with Corporate Governance Code and the disclosure of relevant information in the Corporate Governance Report. The Board supervises the business, strategy and decision making as well as performance of the Group, in a bid to achieve sound growth momentum to improve shareholder value. Each Director executes his duties in good faith and make objective decisions in compliance with requirements of applicable laws and regulations. The Board delegates day-to-day operations of the Company to the management of the Group and also instructs the management to implement the Board's decisions and resolutions. The delegated functions are periodically reviewed. Approval has to be obtained from the Board prior to any significant transaction being entered into. Non-executive Directors and independent non-executive Directors actively participated in the meetings of the Board and its committees to exercise their independent judgment on issues of strategy, policy, performance, accountability, resources, key appointments and standards of conduct of the Company. All of the non-executive Directors and independent non-executive Directors made positive contributions to the strategy and policies of the Company's development through independent, constructive and informed comments. In addition, the Board has also delegated various responsibilities to the Audit Committee, the Nomination Committee, the Remuneration Committee and the Compliance Committee.

The Board also has a balance of skills and experience appropriate for the requirements of the Company's business and it ensures that changes to its composition can be managed without undue disruption. There is a sufficient number of non-executive Directors for their views to carry weight. As not less than one-third of the Board shall be made up of independent non-executive Directors, there is also a strong independent element on the Board, which facilitates the exercise of independent judgment by the Board. One of the independent non-executive Directors, Mr. Jingwei Liu, holds the appropriate professional qualifications as required under Rule 3.10(2) of the Listing Rules.

Directors are provided in a timely manner with appropriate information in the form and quality to enable them to make an informed decision and perform their duties and responsibilities.

Each newly appointed director receives formal, comprehensive and tailored induction on the first occasion of his appointment, so as to ensure that he understands the business and operations of the Company and that he is fully aware of his responsibilities and obligations under the Listing Rules and other relevant regulatory requirements.

The Directors are continually provided with information relating to the developments in the legal and regulatory regime and the business and market environments to facilitate the execution of their responsibilities. Continuing briefings and professional development training for the directors were arranged by the Company and its professional advisers.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

During the year ended 31 December 2017, all the Directors have taken continuous professional development trainings in order to refresh their knowledge and skills and have provided relevant records to the Company.

The types of trainings in which all Directors participated in during the Year are as follows:

### Type of Trainings

#### *Executive Directors*

Mr. Xinghu Tao	A, B
Mr. Lin Zhang ( <i>appointed on 19 May 2017</i> )	A, B
Mr. Chunlai Wang	A, B
Mr. Wei Fan	A, B
Mr. Kaishou Xie	A, B
Mr. Xingeng Luo ( <i>resigned on 19 May 2017</i> )	B

#### *Non-Executive Director*

Mr. Diyong Yan	A
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#### *Independent Non-Executive Directors*

Mr. Chuanyao Sun	A
Mr. Jingwei Liu	A
Mr. Huanfei Guan	A

A: attending seminars, conferences and/or expert briefings relevant to the business or directors' duties

B: paying visits to the Group's local management and facilities

Pursuant to Rule 3.13 of the Listing Rules, the Company has received written annual confirmation from each independent non-executive Director for his independence and considers that all independent non-executive Directors are independent in accordance with the guidelines set out in the Listing Rules.

The Company has arranged appropriate insurance cover in respect of legal action against all the Directors.

# CORPORATE GOVERNANCE REPORT (CONTINUED)

## CHAIRMAN AND CHIEF EXECUTIVE

Mr. Xinghu Tao serves as the Chairman and President of the Company with effect from 20 April 2015. This is at variance with code provision A.2.1 of the Corporate Governance Code, which provides that the roles of Chairman and chief executive should be separate and should not be performed by the same individual. The division of responsibilities between the Chairman and chief executive should be clearly established and set out in writing.

In view of the ever-changing business environment in which our Group operates, the Chairman and President must be proficient in the mining industry and be sensitive to market changes in order to promote the businesses of the Group.

Though the Board considers that a segregation of the role of the Chairman and President may create unnecessary costs for the daily operation of the Group, it also believes that it is of greater importance to achieve adequate balance of power and safeguards. Therefore, the Board will regularly monitor and review the Company's structure, make necessary changes at an appropriate time and inform shareholders accordingly.

The Board had been searching for a suitable candidate to act as the President of the Company. Mr. Xinghu Tao ceased to be the President of the Company and Mr. Lin Zhang with over 30 years of experience in mining and extensive practical experience in the operation of listed group companies was appointed as executive Director and President of the Company during the Year, since then, the roles of Chairman and President of the Company are not performed by the same individual. The Company had complied with code provision A.2.1 of the CG Code as at 31 December 2017.

## APPOINTMENT AND RETIREMENT OF DIRECTORS

In accordance with the article 102 of the Articles of Association, at each annual general meeting, one-third of the Directors or, if their number is not three (3) or a multiple of three (3), the number which is nearest to and is at least one-third, shall retire from office by rotation at least once every three (3) years. A retiring director shall be eligible for re-election. Pursuant to article 103 of the Articles of Association, the directors to retire by rotation shall be those who have been longest in office since their last appointment or reappointment, but as between persons who became or were last reappointed directors on the same day those to retire shall (unless they otherwise agree among themselves) be determined by lot. According to articles 102 and 103, Mr. Chunlai Wang, Mr. Wei Fan and Mr. Diyong Yan, being one-third of the Directors, shall retire at the forthcoming annual general meeting. They are eligible for re-election and will offer themselves for re-election. Pursuant to the article 107 of the Articles of Association, a director appointed by the Board to fill a vacancy or as an additional director shall retire at the next following annual general meeting and shall then be eligible for re-election. Mr. Lin Zhang, being appointed by the Board during the Year, shall retire at the forthcoming annual general meeting and, being eligible, will offer himself for re-election.

The Nomination Committee is responsible for reviewing the Board composition, developing and formulating the relevant procedures for nomination and appointment of Directors, monitoring the appointment and succession planning of Directors and assessing the independence of independent non-executive Directors.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

Each of the executive Directors has signed a service agreement and a supplemental service agreement with the Company for an initial term of three years and to renew for 3 years automatically (subject to termination in certain circumstances as stipulated in the relevant service agreement). Each of the non-executive Directors (including three independent non-executive Directors) has signed a letter of appointment and a supplemental letter of appointment with the Company for an initial term of three years and to renew for 3 years automatically (subject to termination in certain circumstances as stipulated in the relevant letters of appointment).

Save as disclosed herein, none of the Directors has or is proposed to have entered into any service agreement or letter of appointment with any member of the Group (excluding agreements expiring or determinable by any member of the Group within one year without the payment of compensation other than statutory compensation).

### PRACTICES OF BOARD MEETINGS

Notices of regular Board meetings are given to all the Directors at least 14 days before the meetings. Schedules and agenda of each meeting are made available to the Directors in advance. All the Directors are given an opportunity to include matters in the agenda for regular Board meetings. For other Board and committee meetings, notices are given within reasonable time in advance. Minutes of all Board meetings and committee meetings are kept by the joint company secretaries and open for the Directors' inspection. Draft and final version of minutes are circulated to the Directors for their comments and records within a reasonable time after the Board meeting is held. Minutes of the meetings of the Board and Committees recorded sufficient details of the matters considered and decisions reached at relevant meetings, including any concerns raised by Directors or dissenting views expressed.

The Directors, upon reasonable request, will be provided with independent professional advice, at the Company's expense, to assist them to perform their duties. They may also have access to the senior management whenever necessary. Senior management would attend all regular Board meetings as and whenever necessary to report and advise the Board on business developments, financial and accounting matters, statutory and regulatory compliance, corporate governance and other major aspects of the Company. All Directors are entitled to have access to Board papers and related materials. The Company shall provide prompt and full responses to queries raised by the Directors as soon as it possibly can.

Pursuant to the provision of the Company's Articles of Association, a Director shall not vote nor be counted in the quorum at the Board meeting on any resolution approving any contract or arrangement or concerning a matter in which he or any of his associate(s) has, directly or indirectly, a material interest (other than an interest in shares, debentures or other securities of, or otherwise in or through, the Company) unless his interest arises because of specified matters set out in the Articles.

### BOARD COMMITTEES

The Board has established the Audit Committee, the Nomination Committee, the Remuneration Committee and the Compliance Committee to oversee particular aspects of the affairs of the Company. Each of these committees is set up with specific written terms of reference and the same has been published on the website of Hong Kong Stock Exchange. Each committee is delegated with authorities and duties within its terms of reference. The agenda of Board committees and relevant documents will be sent to all Directors at least three days before the intended date of relevant meetings. Each committee shall report to the Board according to its terms of reference.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

### AUDIT COMMITTEE

The Audit Committee consists of three members. As at 31 December 2017, the Audit Committee members are Mr. Jingwei Liu and Mr. Huanfei Guan, being independent non-executive Directors, and Mr. Diyong Yan, being a non-executive Director. The chairman of the Audit Committee is Mr. Jingwei Liu, an independent non-executive Director, who holds the appropriate professional qualifications as required under Rules 3.10(2) and 3.21 of the Listing Rules. The primary duties of the Audit Committee include, but are not limited to, being in charge of matters related to external auditors, assisting the Board by providing an independent view of the effectiveness of the financial reporting process, internal control and risk management system of the Group, overseeing the audit process, reviewing the financial information of the Company and performing other duties and responsibilities assigned by the Board.

The Audit Committee is also responsible for overseeing and monitoring the risk management and internal control systems of the Company on an ongoing basis and review with our external auditors and management periodically, not less than once a year, the scope, adequacy and effectiveness of the Company's corporate accounting and financial controls, risk management and internal control systems and any related significant findings regarding risks or disclosure, and consider recommendations for improvement of such controls. The review should cover all material controls, including financial, operational and compliance controls. In conducting annual review, the Audit Committee should, in particular, consider the factors including (a) the changes, since the last annual review, in the nature and extent of significant risks, and the issuer's ability to respond to changes in its business and the external environment; (b) the scope and quality of management's ongoing monitoring of risks and of the internal control systems, and where applicable, the work of its internal audit function and other assurance providers; (c) the extent and frequency of communication of monitoring results to the board which enables it to assess control of the issuer and the effectiveness of risk management; (d) significant control failings or weaknesses that have been identified during the period. Also, the extent to which they have resulted in unforeseen outcomes or contingencies that have had, could have had, or may in the future have, a material impact on the issuer's financial performance or condition; and (e) the effectiveness of the issuer's processes for financial reporting and Listing Rule compliance.

The Audit Committee is also responsible for reviewing the Company's internal audit function, ensuring co-ordination within the Group and between the Company's internal and external auditors, and ensuring that the internal audit function is adequately resourced and has appropriate standing within the Company and to review and monitor its effectiveness.

The Audit Committee had reviewed the Group's unaudited financial statements for the six months ended 30 June 2017, the announcements on interim results and annual results, the interim report and annual report subject to the approval of the Board. It had advised the Directors on the audit report, accounting policies and comments.

The Company's and the Group's audited financial statements for the year ended 31 December 2017 have also been reviewed by the Audit Committee, who was of the opinion that these statements complied with the applicable accounting standards, the Listing Rules and the legal requirements, and that adequate disclosures had been made.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

For the Year, the Audit Committee held two meetings and the attendance records of individual members are set out below:

<b>Name of Directors</b>	<b>Number of meetings attended/held</b>
Mr. Jingwei Liu	2/2
Mr. Diyong Yan	2/2
Mr. Huanfei Guan	2/2

### NOMINATION COMMITTEE

The Nomination Committee consists of three members. As at 31 December 2017, the Nomination Committee members are Mr. Chuanyao Sun and Mr. Jingwei Liu, being independent non-executive Directors, and Mr. Diyong Yan, being a non-executive Director. The chairman of the Nomination Committee is Mr. Chuanyao Sun, an independent non-executive Director. The Company has adopted the board diversity policy on 30 August 2013. The primary functions of the Nomination Committee include, but are not limited to, reviewing the structure, size, diversity (including but not limited to gender, age, culture and educational background), and composition of the Board of Directors, assessing the independence of independent non-executive Directors and making recommendations to the Board on matters relating to the appointment of Directors. The Nomination Committee is authorised by the Directors to obtain advice from external counsel or other independent professional consultants if necessary. It may invite external individuals with relevant experience and professional knowledge to attend the meeting when needed. The Nomination Committee will be provided adequate resources to perform its duties.

The Nomination Committee has fulfilled the primary duties mentioned above. At the meeting held by the Nomination Committee in 2017, it reviewed the structure, size, composition and diversity of the Board to ensure that the Board has a balance of expertise, skills and experience appropriate for the business of the Company, and assessed the independence of the independent non-executive Directors. The Nomination Committee reviewed the appointment of each Director prior to that Director seeking re-election at the forthcoming annual general meeting and was pleased to recommend the re-election of all the three eligible Directors to the Board.

For the Year, the Nomination Committee held one meeting and the attendance records of individual members are set out below:

<b>Name of Directors</b>	<b>Number of meetings attended/held</b>
Mr. Chuanyao Sun	1/1
Mr. Diyong Yan	1/1
Mr. Jingwei Liu	1/1

# CORPORATE GOVERNANCE REPORT (CONTINUED)

## REMUNERATION COMMITTEE

The Remuneration Committee consists of three members. As at 31 December 2017, the Remuneration Committee members are, Mr. Huanfei Guan and Mr. Chuanyao Sun, being independent non-executive Directors, and Mr. Diyong Yan, being a non-executive Director. The Remuneration Committee is chaired by Mr. Huanfei Guan, an independent non-executive Director. The primary duties of the Remuneration Committee include, but are not limited to, the following: (i) making recommendations to the Board on the Company's policy and structure for all remuneration of the Directors (including executive Directors) and senior management and on the establishment of a formal and transparent procedure for development policy on such remuneration; (ii) reviewing and approving performance-based remuneration by reference to corporate goals and objectives resolved by the Board from time to time; (iii) evaluating the performance of executive Directors; and (iv) approving the terms of executive Directors' service contracts. The Remuneration Committee is authorised by the Directors to obtain advice from external counsel or other independent professional consultants if necessary. It may invite external individuals with relevant experience and professional knowledge to attend the meeting when needed. The Remuneration Committee is provided with adequate resources to perform its duties.

The remuneration payable to each of the directors is determined by the Remuneration Committee with reference to his contribution of time, effort and expertise on the Company's matters.

The Remuneration Committee of the Company has performed the primary duties mentioned above.

For the remuneration of the Directors for the year ended 31 December 2017, please refer to note 13 to the audited consolidated financial statements of this annual report.

Please see below for the remuneration of the senior management of the Company by band for the year ended 31 December 2017:

	<b>Number of senior management</b>
HK\$0 to HK\$500,000	2
HK\$500,001 to HK\$1,000,000	2
HK\$1,000,001 to HK\$1,500,000	4

For the Year, the Remuneration Committee held one meeting and the attendance records of individual members are set out below:

<b>Name of Directors</b>	<b>Number of meetings attended/held</b>
Mr. Huanfei Guan	1/1
Mr. Diyong Yan	1/1
Mr. Chuanyao Sun	1/1



# CORPORATE GOVERNANCE REPORT (CONTINUED)

## COMPLIANCE COMMITTEE

The Compliance Committee consists of three members. As at 31 December 2017, the Compliance Committee members are Mr. Xinghu Tao, an executive Director, Mr. Chuanyao Sun and Mr. Huanfei Guan, being independent non-executive Directors. The chairman of the Compliance Committee is Mr. Xinghu Tao, an executive Director. The primary functions of the Compliance Committee include, but are not limited to, overseeing and monitoring the compliance status of the Company's business and operations based on the applicable legal and regulatory requirements as well as the Company's own internal control policies and procedures; reviewing regular and special reports submitted by the compliance principal in each subsidiary and requiring such compliance principals to prepare specific reports dealing with particular internal control or compliance issues for review; holding regular meeting to discuss, investigate and make plans for the legal and compliance matters; formulating and reviewing the Company's policies and practice on corporate government and making recommendations to the Board; and reviewing the Company's compliance with the Corporate Governance Code set out in the Listing Rules and disclosure in the Corporate Governance Report section of the Company's annual report.

The Compliance Committee has performed the primary duties mentioned above.

For the Year, the Compliance Committee held two meetings and the attendance records of individual members are set out below:

<b>Name of Directors</b>	<b>Number of meetings attended/held</b>
Mr. Xinghu Tao	2/2
Mr. Chuanyao Sun	2/2
Mr. Huanfei Guan	2/2

## INDEPENDENT AUDITOR

The Group's independent external auditor is Deloitte Touche Tohmatsu ("Deloitte"). Deloitte is responsible for presenting independent opinions on the consolidated financial statements of the Group in accordance with the results of their auditing work, and reporting to the Shareholders on the same. Apart from the statutory audit of the annual consolidated financial statements, Deloitte was also engaged to perform a review of the interim consolidated financial statements of the Group for the six months ended 30 June 2017 and to provide assurance service on continuing connected transactions.

The remuneration paid to Deloitte and its affiliates in respect of audit services and other non-auditing services (those are, review of the interim consolidated financial statements of the Group, tax consulting services for subsidiaries located in Zambia and Ireland and consulting services in respect of risk management, internal control and compliance of the Environmental, Social and Governance Reporting Guide) for the year ended 31 December 2017 amounted to US\$833,000 (RMB2,880,000 and US\$407,000) and US\$339,000 (RMB1,850,000, HK\$250,000 and US\$33,000) respectively.

# CORPORATE GOVERNANCE REPORT (CONTINUED)

## COMPANY SECRETARIES

Mr. Aibin Hu and Mr. Tin Wai Lee are the joint company secretaries of the Company.

Mr. Tin Wai Lee's primary corporate contact person at the Company is Mr. Aibin Hu. The joint company secretaries have taken no less than 15 hours of relevant professional training during the Year. Joint secretaries of the Company shall report to chairman of the Board and/or chief executive.

## FINANCIAL REPORTING

The Directors acknowledge their responsibility for preparing the consolidated financial statements of the Group, which were prepared in accordance with statutory requirements and applicable accounting standards. The management has provided detailed explanation and information to the Board, which will enable the Board to make informed assessment on the financial and other information put before the Board for approval. Updated information has been provided by the management to members of the Board on a monthly basis, containing fair and understandable assessment on performance, financial condition and prospect of the Group.

The auditor's report for the consolidated financial statements for the year ended 31 December 2017 is set out on pages 125 to 129 of this annual report.

## RISK MANAGEMENT AND INTERNAL CONTROL

The Group is dedicated to maintaining and establishing quality corporate governance. Pursuant to code provisions of the Corporate Governance Code set out in Appendix 14 of Listing Rules, basic standards, guidelines for evaluation as well as other requirements under relevant laws and regulations, the Group has conducted self-evaluation on the effectiveness of its internal control in respect of design and operation. As at 31 December 2017, the internal control for businesses and matters involved in self-evaluation has been established and has operated effectively. Thus the internal control objective of the Group was achieved and the internal control of the Group was sound and effective.

The Board recognises its responsibility for maintaining an adequate and sound internal control system and assesses its effectiveness of internal control on a regular basis. Through the Audit Committee, the Compliance Committee and an external firm of qualified accountants providing internal control services, the Board conducts reviews on the effectiveness of these systems at least once a year, covering all material controls, including financial, operational and compliance controls, and risk management functions. In addition, the review also considers the adequacy of resources, staff qualifications and experience, training programmes and budget of the Group's accounting and financial reporting function.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

We note that risk management and internal control shall be in line with the Group's operation scale, business scope, competition and risk level, and shall be adjusted in a timely manner according to changes in circumstances. During the year: 1) we further set up the comprehensive management system and mechanism for statutory and compliant works; 2) we engaged Deloitte Touche Tohmatsu CPA Ltd. to organize and conduct two special auditing programs, namely "Risk Management and Internal Control System" and "Environmental, Social and Corporate Governance", being an independent assessment of risk management, internal control system, environmental, social and corporate governance of the Group, thus laying a solid foundation for the improvement of governance structure and level of the Group; 3) we strengthened training to improve management level. In 2017, the Board has reviewed the risk management and internal control of the Group. The Compliance Committee held two meetings to study and arrange statutory and compliance management works. In addition to the training provided by Davis Polk & Wardwell to Directors, senior management and compliance management personnel, in relation to risk management, internal control, environmental, social and corporate governance, the company secretary and other compliance management personnel also attended the various professional trainings provided by the Hong Kong Institute of Chartered Secretaries, Beijing Corporate Counsel Association (北京市法律顧問協會) and SASAC Bureau of Legislation (國資委法制局), with an aim to continuously improve the awareness for compliance and prevention of legal risks and operational capabilities of themselves and the compliance staff involved in legal matters of the Company.

### RISK MANAGEMENT AND INTERNAL CONTROL REPORT

#### I. Responsibilities

The Board of the Company is fully responsible for maintaining sound and effective risk management and internal control system, while the management is responsible for the design and implementation of the risk management and internal control system to manage the risks. The Board further clarifies that a sound and effective risk management and internal control system is designed to identify and manage the risk of failure to achieve business objectives, and only makes reasonable, but not absolute, rather than eliminate, assurance against material misstatement or loss.

#### II. Risk Management and Internal Control Structure of the Company

The Board is responsible for the Company's risk management and internal control system and reviews its effectiveness periodically. The Audit Committee and the Compliance Committee assist the Board in monitoring the Group's risk tolerance level, the designs of the risk management and internal control system and their operational effectiveness.

The Group strictly complies with the requirements of the Listing Rules and relevant laws and regulations on inside information management, and strictly supervises the dealing and publishing of inside information to keep such information in confidentiality before being disclosed, and be disclosed in an accurate and timely manner.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

The Audit Committee will continuously supervise and monitor the Company's risk management and internal control system, and will review with external auditors and senior management of the Company responsible for the relevant matters on a regular basis (at least once a year) the scope, adequacy and effectiveness of the Company's accounting and financial monitoring, risk management and internal control systems, as well as any significant findings related to risks or disclosure, and make recommendations for improvement of such controls. The matters that the Audit Committee is responsible for include, but are not limited to, the following:

- (a) discussing the changes, since the last annual review, in the nature and extent of significant risks, and the Company's ability to respond to changes in its business and the external environment;
- (b) supervising the scope and quality of the continuous monitoring of risk management and internal control system by senior management, as well as internal audit functions and works of other assurance providers;
- (c) reporting on the extent and frequency of communication of monitoring results to the Board to enable the Audit Committee to assess control of the Company and the effectiveness of risk management;
- (d) assessing significant control failings or weaknesses that have been identified during the reporting period and the extent to which they have resulted in unforeseen outcomes or contingencies that have had, may have or may in the future have, a material impact on the Company's financial performance;
- (e) discussing the effectiveness of the Company's procedures on financial reporting and the compliance of the Listing Rules;
- (f) discussing the risk management and internal control system with senior management in order to ensure the proper establishment and maintenance of effective systems by senior management in the performance of its duties. The discussion should include the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting, internal control and financial reporting functions;
- (g) considering major findings from investigation on risk management and internal control matters as delegated by the Board or on its own initiative and considering management's response to these findings;

## CORPORATE GOVERNANCE REPORT (CONTINUED)

- (h) reviewing the internal audit function, to ensure co-ordination between the internal and external auditors of the Company, to ensure that the internal audit function is adequately resourced and has appropriate standing within the Company, and to review and monitor its effectiveness;
- (i) reporting to the Board of any actions that have been noted and which, depending on their severity, should be brought to the attention of the Board in respect of any alleged fraud, non-compliance, failure of risk management and internal control system, or alleged violations and irregularities, and to review the internal investigation findings of any alleged fraud, non-compliance, failure of risk management and internal control system, or alleged violations and irregularities in financial reporting;
- (j) reporting to the shareholders in the Corporate Governance Report its annual review of the effectiveness of risk management, internal control system and internal audit functions, or whether additional internal audit functions are required and explain why this function is not available (as the case may be), in order to make sure that the Company has complied with the disclosure requirements for risk management and internal control in the Corporate Governance Code and Corporate Governance Report under the Listing Rules.

The responsibilities of the Compliance Committee in risk management and internal control shall include, but are not limited to:

- (a) devising mechanisms and procedures and making recommendations on improving the internal control system;
- (b) improving and reviewing the effectiveness of the Company's risk management and internal control policies and making recommendations on their improvement;
- (c) overseeing and monitoring the compliance of the Company's business and operations in accordance with applicable legal and regulatory requirements as well as with the risk management and internal control policies and procedures;
- (d) fostering a conducive compliance and risk culture within the Company and considering key risk and compliance issues in relation to the Company's commercial activities.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

### Risk Management Structure of the Company

Top-down: monitor, identify, assess and control the risks at corporate level	<b>Board</b>		<b>Audit Committee</b>	<b>Compliance Committee</b>
	<ul style="list-style-type: none"> <li>Fully responsible for the Company's risk management and internal control system</li> <li>Set up strategic objectives to review the effectiveness of the Company's risk management and internal control system</li> </ul>	<ul style="list-style-type: none"> <li>Assess and define the nature and extent of the risks</li> <li>Provide guidance on the importance of risk management and promote the risk management culture</li> </ul>	<ul style="list-style-type: none"> <li>Continuously monitor the Company's risk management and internal control system and regularly review the scope, adequacy and effectiveness of the Company's accounting and financial monitoring, and risk management and internal control system</li> </ul>	<ul style="list-style-type: none"> <li>Assist the Board in improving and checking the effectiveness of the Company's risk management and internal control policies and make recommendations for their improvement</li> </ul>
Bottom-up: identify, assess and control the risks of business units at operations level and the scope of the functions	<b>Management</b>		<b>Internal audit</b>	
	<ul style="list-style-type: none"> <li>Design, implement and monitor risk management and internal control system</li> <li>Assess the risks to the Company and its control measures</li> </ul>		<ul style="list-style-type: none"> <li>Assist the Audit Committee in reviewing the effectiveness of the Company's risk management and internal control system</li> </ul>	
	<b>Business units at operations level</b>			
<ul style="list-style-type: none"> <li>Identify, evaluate and manage business risks</li> </ul>		<ul style="list-style-type: none"> <li>Implement risk management procedures and internal control measures within each operational and functional scope</li> </ul>		

## CORPORATE GOVERNANCE REPORT (CONTINUED)

### III. Internal Control Model

The internal control model of the Company is based on the model set down by the Committee of Sponsoring Organisations of the U.S. Treadway Commission (“COSO”), and has five components, namely: internal environment, risk assessment, control activities, information and communication, and internal supervision. In developing our internal control model based on the internal control model set by COSO, the Company has taken into consideration its organisation structure and nature of business activities.

**Internal Environment** – This creates suitable conditions for the risk management and internal control of the Company. The Company formed a management style focusing on corporate governance, and built a corporate culture with good professional ethics and accountability. The Company has formulated the Code on Corporate Governance Practices and promoted it to all employees. The Internal Control Management Manual of the Company has full coverage of the organisational structure, development strategies, human resources, social responsibility, corporate culture and other internal environment aspects, aims to build risk awareness and internal control responsibility into our culture and is regarded as the foundation of the Company’s internal controls system.

**Risk Assessment** – The Company formed a risk management system for risk identification, risk analysis, risk assessment and risk response. The Board, management and all employees work together for continuing promotion of risk management. A law and compliance department was established by the Company to regularly follow up on risk management work, to prepare a compliance report every month so as to track the risk situation of the enterprise and to integrate the risk management function into the daily management work and the scope of business operation and functions of each enterprise. Meanwhile, an annual risk survey and assessment work was carried out so as to keep track of the distribution and change of risk.

**Control Activities** – The Company’s core businesses of mining, ore processing, smelting and sales of copper have all established mature operational processes. The Company and its subsidiaries have formed a sound system covering every production and business activity at the business and financial level. Besides, the Company has strengthened its information automation program to effectively set restrictions on power and implement the separation of duties.

**Information and Communication** – The Company established a sound information communication mechanism, for example, it promulgated the “Management System of Information Disclosure of China Nonferrous Mining Corporation Limited” and the “Management System of Financial Information Disclosure of China Nonferrous Mining Corporation Limited”, set up a periodic reporting mechanism of monthly compliance information including statutory matters, internal control system, legal cases and related party transactions, and the Company continuously supervises and controls the financial information and compliance information of its subsidiaries.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

**Internal Supervision** – The supervision procedure is organised by the Board, the Audit Committee and the Compliance Committee, and performed by the Legal and Compliance Department and the internal auditor. The Audit Committee and the Compliance Committee shall hold at least two meetings a year, to continuously monitor the risk management and internal control system. At management level, the Company has a complaint channel to carry out anti-fraud monitoring work, and the Legal and Compliance Department will arrange reviews on the risk management and internal control system annually.

### IV. Review on the Effectiveness of the Risk Management and Internal Control System in 2017

The Company has organised an overall review on the risk management and internal control system in 2017. As of 31 December 2017, as confirmed by the management, the Board considered that the risk management and internal control system is effective and sufficient and did not identify any significant issues that may affect the Company's financial monitoring, operational monitoring, compliance monitoring and risk management functions.

During the course of review, the Board considered that the resources available to, qualifications of and experience of staff responsible for the Company's accounting and financial reporting, training and budget were sufficient.

### V. Further Reinforce the Company's Risk Management and Internal Control System

The Company has further reinforced its risk management and internal control system, with focus on the following:

#### *Internal Environment – Comprehensive Promotion of Amendments to the Norm of the System*

The Company and its subsidiaries promote the revision and improvement of the system. Considering the current situation of the Company, they comprehensively streamline the system norms, continuously optimize the work procedure. They promote the institutionalization, standardization, and documentation of management mode and enhance and improve the system, so as to provide a sound environment for the standardization of the operation.

#### *Risk Assessment – Improving the Risk Assessment System*

In order to further reinforce the monitoring of significant and potential risks, the Board will take the lead on, and the management will identify and follow up on, the distribution of risks. In daily operation and management, the chief executive officer will discuss the risk management status, including strategic risk, operational risk, financial risk, market risk and legal risk, with various departments through executive office meetings. In addition, through specific risk assessment at the end of the year, the Company will analyze the distribution and influence of the existing risks so as to improve the level of risk management. In view of the ever-changing global and local environment, the Company will focus mainly on monitoring significant and potential risks.



## CORPORATE GOVERNANCE REPORT (CONTINUED)

### *Control Activities – Consolidation and Improvement of the Management Level*

In response to the external environment and operation risk, the Company continuously enhances the level of intensive management. It intensified the level of production management, financial control, compliance monitoring and public relationship management through the optimization of the management system and re-establishment of the procedure. For example, Chambishi Copper Smelter continuously promoted its meticulous management through the implementation of a complete budget and performance system as well as a dashboard management model. CNMHK improved the operation results and prevented and controlled operation risks through centralized purchasing, quality management, capital management, self-examination of legal compliance and other measures.

### *Information and Communication – Continuous Promotion of Informationization Management*

The subsidiaries of the Company have actively promoted the informationization management. NFCA continuously and orderly promoted the digitalization and informatization of the mines, the automatic production dispatching system and the management and control system of the electrical energy in the pit. The connection of financial system and warehouse system of CCS has been put on the agenda.

### *Internal Supervision – Fully Implementation of Evaluation on Internal Control System*

On the basis of the conventional annual internal control evaluation, the law and compliance department organised a special evaluation on risk management and internal control system in 2017 to carry out a thorough and holistic evaluation of the risk management and internal control system of the Company and its subsidiaries.

## **VI. Future Development**

Developing a risk management system that will be used by each operating unit to manage and control risks is an ongoing process. The Company will continue to enhance its risk management and control capabilities, improve its internal control structure, and strive to integrate risk management and internal control into its business processes.

# CORPORATE GOVERNANCE REPORT (CONTINUED)

## VII. Risk Factors of the Company

As a basis for the risk management policy, the Company should be aware of the risk factors and risk changes it is currently exposed to. The following table sets out the nature and risk changes of some of the significant risks to the Company.

<b>Risks</b>	<b>Description of risks change</b>	<b>Risks change in 2017</b>
Political environment	<ul style="list-style-type: none"> <li>The orderly rotation of the DRC government still has many uncertainties. There still exist uncertain political factors which would affect the operation of the Company.</li> <li>The economic environment in Zambia remained to be unclear, from which the changes in policies would affect the operation and management of the Company.</li> </ul>	Maintained
Product price	<ul style="list-style-type: none"> <li>The steady recovery of the global economy in 2017, the strong increase in copper price and the high copper price in the second half of the year brought favorable news for the operation performance of the Company.</li> </ul>	Reduced
Sales management	<ul style="list-style-type: none"> <li>The Company continued to expand the market and strengthened integrated operation. According to the integration trend of the copper acid market in Zambia and DRC, Chambishi Copper Smelter improved the analysis on the copper acid market, continuously collected the resource, improved the logistics and warehouses, proactively tracked the changes in the demand and supply in the area, adjusted the production and operation pace and the marketing strategy. CCS achieved the high load production and a balance between production and sales of the Copper Acid system.</li> </ul>	Reduced

## CORPORATE GOVERNANCE REPORT (CONTINUED)

Risks	Description of risks change	Risks change in 2017
Production management	<ul style="list-style-type: none"> <li>Comprehensively promote the quality and efficiency enhancement, formulate a specific work plan for the quality and efficiency enhancement, streamline the several measures for the quality and efficiency enhancement, promote the improvement of the production system, dispose low-efficiency and ineffective assets and reduce the energy consumption of the raw material.</li> </ul>	Maintained
Asset management	<ul style="list-style-type: none"> <li>The strong increase in copper price in 2017 brought an industry boom. The asset impairment risk of the Company further declined as compared with 2016.</li> </ul>	Reduced
Foreign exchange management	<ul style="list-style-type: none"> <li>The exchange rate of ZMK against the US dollar was relatively stable in 2017. The change in exchange rate had little impact on the production and operation of the Company.</li> </ul>	Maintained
Legal litigation	<ul style="list-style-type: none"> <li>The cases still exist but are well-managed.</li> </ul>	Maintained

# CORPORATE GOVERNANCE REPORT (CONTINUED)

## COMMUNICATION WITH SHAREHOLDERS AND INVESTORS

The Group emphasises the importance of maintaining good communication with the Shareholders and investors, so as to increase the Group's transparency and facilitate the performance of undertaking by the Shareholders. The annual general meeting provides a useful forum for Shareholders to exchange views with the Board. The chairman of the Board will attend and invite the chairmen of the Audit Committee, the Remuneration Committee and the Nomination Committee to attend the annual general meetings. The members of the Board are pleased to answer Shareholders' questions. To foster two-way communication amongst the Group, its Shareholders and potential investors, the Group has assigned personnel in respect of investor relations to respond to enquiries from Shareholders and the public. In the event that a Shareholder wishes to put forward a proposal to the Board, he may put forth his enquiry in writing to the investor relations personnel who will handle the same accordingly. The Group is also willing to maintain communication with shareholders and investors on a continuous basis through individual and group meetings. In addition, the Group is committed to maximising the use of its website as a channel to provide updated information in a timely manner and strengthen the communication with both the Shareholders and the public.



Outstanding Listed Company Award granted by IFAPC in 2013



President's Award granted by the Community Chest of Hong Kong

Pursuant to code provision E.1.3 of CG Code, the Company shall arrange for the notice to shareholders to be sent for annual general meetings at least 20 clear business days before the meeting and to be sent at least 10 clear business days for all other general meetings.

Pursuant to Articles of Association, any extraordinary general meeting at which the passing of a special resolution is to be considered shall be called by notice of not less than 21 clear days. All other extraordinary general meetings may be called by notice of not less than 14 clear days but if permitted by the Articles of Association, a general meeting may be called by shorter notice.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

In addition, in accordance with the provisions of the Articles of Association, an extraordinary general meeting may be convened on requisition as provided by the Companies Ordinance. According to the Companies Ordinance, the directors are required to call a general meeting if the company has received requests to do so from shareholders of the company representing at least 5% of the total voting rights of all the shareholders having a right to vote at general meetings. Such meeting must be held on a date not more than 28 days after the date of the notice convening the meeting. The directors also have a duty to circulate a resolution proposed as a written resolution by a shareholder (together with any statement of not more than 1,000 words on the subject of the resolution proposed by the shareholder) if the company has received such requests from the shareholders of the company representing not less than 5% of the total voting rights of all the shareholders entitled to vote on the resolution.

Shareholders may at any time send their enquiries and concerns to the Board in writing at Room 1201, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong. Sufficient contact details are available to enable these enquiries to be properly attended to.

All resolutions put forward at a general meeting will be taken by poll pursuant to the Listing Rules except where the chairman, in good faith, decides to allow a resolution which relates purely to a procedural or administrative matter to be voted on by a show of hands. In addition, the poll results will be posted on the websites of the Company and the Hong Kong Stock Exchange after the relevant shareholders' meeting. Sufficient contact details are available for shareholders to send their advice.

### INVESTOR RELATIONS

There has been no changes to the Company's Articles of Association during the year ended 31 December 2017.

The Group strongly believes that investor relations are an integral part of maintaining good corporate governance of a listed company. During the reporting period, the Group has been actively maintaining contact with investors and keeping them abreast of the latest industry updates, corporate communications and business development in a timely manner, so as to establish a platform for fair, open and transparent information disclosure. One of the joint company secretaries, Mr. Aibin Hu, is responsible for the investor relations of the Group with the full support from the Board and the senior management. Mr. Hu can be contacted by email at huab@cnmc.com.cn, by telephone at +86 10 8442 6886 and by fax at +86 10 8442 6376, Ms. Wang Yiran, the deputy manager of general affairs department, can be contacted by email at wangyr@cnmc.com.cn and by telephone at +86 10 8442 6082. During the Year, the Group actively participated in various investor relations activities and provided on-time information to investors through its company website.

## CORPORATE GOVERNANCE REPORT (CONTINUED)

### CONTINUOUS IMPROVEMENT OF INVESTOR RELATIONS

The Group published interim and annual results and disclosed discloseable inside information promptly in strict compliance with guidelines of Securities and Futures Commission and Hong Kong Stock Exchange, to provide financial performance, operating strategies and future prospects of the Company to the public in an accurate and effective manner.

The Group maintained close relationships with certain institutions including professional media outlets and investment banks, in a view to learn about the market recognition and expectation to the Group through various channels such as the media and analysts. In the meantime, the Group provided updates to the public in a bid to increase the Group's publicity.

The Company's website is considered to be one of the quickest means to communicate with investors. Through on-going information dissemination, the Group's website ([www.cnmc.net](http://www.cnmc.net)) serves as a platform to communicate with the public. The Group regularly updates the website contents, disseminates the latest updates, so as to enable the public to obtain such information in a timely manner. In addition, the Group also swiftly responds to different enquiries made by the Shareholders, investors, analysts and media by means of email, facsimile and telephone. The Group also published announcements, press releases and other latest updates on the development of the Group, so as to strengthen the effectiveness of information dissemination.



CNMC Huachin Mabende Office area in Lubumbashi in DRC

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

## ABOUT THIS REPORT

The Group believes that sound environmental, social and governance performance has a decisive impact on building a world-leading mining enterprise with international competitiveness and influence and creating long-term value for shareholders. The Group has always stayed true to its original aspiration and kept its mission in mind. While striving to achieve its business targets and improve financial performance, the Group has earnestly performed corporate social responsibility, promoted sustainable development and made due and greater contributions to the building of a community with a shared future for mankind.

This Environmental, Social and Governance (the “ESG”) Report (the “Report”) has been prepared by the Group in accordance with the ESG Reporting Guide as set out in Appendix 27 to the Rules Governing the Listing of Securities on the Main Board of The Stock Exchange of Hong Kong Limited.

This Report covers the head office of the Group and its subsidiaries including NFCA, Luanshya, CCS, SML, Huachin Leach and CNMC Huachin Mabende, as well as the sales of copper and sulfuric acid products, the main source of revenue of the Group, in relation to ESG in the period from 1 January 2017 to 31 December 2017 (the “Reporting Period”). The main stakeholders including business departments and management participated in the evaluation of importance and identification of material ESG policies in relation to the Group for inclusion in this Report. (Note: As the two subsidiaries newly acquired in 2017, namely Lualaba Copper Smelter SAS and Kambove Mining SAS, are yet to commence production, no relevant information of these two subsidiaries is disclosed herein.)

<b>Subject areas set out in the ESG Reporting Guide</b>	<b>Material ESG issues of the Group</b>
<b>A. Environmental</b>	
A1 Emissions	Environmental management
A2 Use of Resources	Resources management
A3 Environment and Natural Resources	Environmental management, resources management
<b>B. Social</b>	
B1 Employment	Staff employment, care for staff
B2 Health and Safety	Safety system, safe operation
B3 Development and Training	Staff development
B4 Labour Standards	Staff employment
B5 Supply Chain Management	Win-win cooperation
B6 Product Responsibility	Quality and efficiency enhancement
B7 Anti-corruption	Operating with integrity
B8 Community Investment	Community communication, community development

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 1 OVERSEAS VALUE

Following the idea of “Sino-foreign cooperation for common development” and the guidance of the “Belt and Road” initiative and the strategy of “going global”, the Group insists on operating with integrity and strives to “achieve high-quality development” through quality and efficiency enhancement and win-win cooperation, thereby creating ever greater value for shareholders, local economic and social development and other stakeholders.

### 1.1 Operating with integrity

The Group mainly conducts its principal business in the Republic of Zambia (“Zambia”) and the Democratic Republic of the Congo (“DRC”). Upholding the principle of operating with integrity, we have strictly abided by the laws and regulations of the PRC, Zambia and the DRC, consistently improved our operation and management system, optimized our corporate governance structure and followed market rules and business ethics to create a clean business atmosphere that champions honest operation and fair competition.

The Group, based on its fundamental principle of honesty and integrity, has developed the Rules of Procedure of General Meetings, and the meetings of the Board of Directors and the President Office of China Nonferrous Mining Corporation Limited (《中國有色礦業有限公司股東大會、董事會暨總裁辦公會議事規則》), the Administrative Rules of General Meetings and the Board of Directors of Investees of China Nonferrous Mining Corporation Limited (《中國有色礦業有限公司附屬公司股東會、董事會管理規則》), the Internal Control Management Manual of China Nonferrous Mining Corporation Limited (《中國有色礦業有限公司內部控制管理手冊》), the Guidelines on Legal and Compliance Management of China Nonferrous Mining Corporation Limited (《中國有色礦業有限公司法律與合規管理工作指引》) and other management regulations and laid down specific implementation rules. Following the Hong Kong Companies Ordinance and the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and other relevant regulations, the Group has established a governance structure consisting of shareholders’ general meeting, the Board of Directors, the board of supervisors and the management team, and adopted the president-responsibility system under the leadership of the Board of Directors, so as to specify decision-making, supervision and management powers and guarantee the compliance and orderly and efficient operation of the Company. Meanwhile, the Group established the Nomination Committee under the Board of Directors to ensure a diversified personnel structure, established the Remuneration Committee to safeguard staff’s interests, established the Compliance Committee to guarantee compliance and sustainable development of the Company and established the Audit Committee to ensure standard internal operation. In addition, in order to better adapt to the legal system of Zambia and the DRC, the Group set up the office of compliance officer/general counsel and the legal and compliance department to ensure the legal compliance of its overseas production and operation activities.



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

In order to prevent corruption risks, the Group formulated the CNMC Related Party Transaction Management Rules, the CNMC Reporting and Complaints Management Rules and other internal management rules. In addition to continuously improving its anti-corruption management system and integrity-based governance rules, the Group clearly defined the responsibilities and authorities of staff at all levels, expanded channels for anonymous supervision and reporting and standardized investigation process and judgement basis to proceed, thus enabling anti-corruption work to be done in a standard, systematic and normalized way. For areas prone to corruption, the Group has enhanced its procurement process and added anti-corruption terms in procurement contracts to prevent the risk of corruption in the supply chain. Furthermore, the Group regularly organizes middle-level and senior-level employees to study anti-corruption policies and documents, carries out incorruption education, admonishing interviews and other activities to enhance staff's awareness of integrity and self-discipline.

During the Reporting Period, there was no litigation against or corresponding penalty imposed on the Group due to corruption, embezzlement and bribery.

## 1.2 Quality and efficiency enhancement

Taking “sustainable utilization of resources” as its object and the enhancement of quality, benefits and core competitiveness as its focus, the Group solidly advances its quality and efficiency enhancement efforts to improve resources utilization rate and the safe and clean production, reduce production costs and enhance product quality and economic benefits, so as to provide customers with high quality products and drive better and faster development of businesses.

The Group adheres to the principle of prioritizing product quality improvement and balancing development speed enhancement. Leveraging on its rich development and operation experience in overseas projects, the Group has established a modern enterprise management system that fits itself and set up relevant supporting policies and systems. It also improved staff performance appraisal system and the indicators for the control of production costs and introduced the internationally-advanced ISO9001 quality management system for refining and standardizing the management of procurement, production and sales of products and the whole process of business operation, aiming at improving the quality and benefits of products in an all-round way. Well aware of the importance of new technology and new process in improving product quality and output, the Group has invested lots of human, material and financial resources to specifically tackle weaknesses in production process such as insufficient quality control and high energy consumption. It also encourages production and management staff to give constructive advice to optimize existing processes. Moreover, staff learning and training programs have been developed and implemented to enhance the job skills and overall quality of its staff and improve product quality control. The above measures enable the Group to continuously achieve new ideas, new mechanisms, new management and new technologies, thereby providing strong driving force for the enhancement of product quality and benefits.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

During the Reporting Period, there was no litigation against or corresponding penalty imposed on the Group due to product quality.

## **Case: Plant Railway Program of CCS**

On 23 March 2017, a train of the Zambian Railway Authority (贊比亞鐵路局) slowly entered the rail loading and unloading platform of CCS and workers started to load the train with blister copper products. On 27 March 2017, the train set off with the first batch of blister copper products, marking that the plant railway program of CCS officially entered the trial operation stage.

The railway program, which started construction in June 2016, has a total length of approximately 2.7 kilometers, connecting the plant of CCS and the trunk line of Mufulira Railway in Zambia. As it is being put into operation, the program will effectively reduce CCS's transportation costs for raw materials, products and sulphuric acid and further boost the market competitiveness of CCS. The program is a significant measure taken by CCS to optimize logistics organization structure and improve economic operation efficiency.



Train stops at the platform



Loading blister copper products onto the train

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Consolidating management to enhance quality and efficiency**

In 2017, NFCA not only struggled to carry out production activities while upgrading production technologies, but also encountered difficulties in infrastructure construction at the Southeast Mine. Notwithstanding, NFCA moved forward with determination and pulled together to work out measures to cope with the difficulties:

- Based on actual conditions of the stopes, it carried out production activities mainly in alternative mining areas and other key areas and paid attention to the drift mining shift efficiency and the cycle of mining and filling in stopes. The comprehensive mining shift efficiency was improved by over 10% and the average production capacity of the West Mine reached 3,806 tonnes/day, approximately 806 tonnes/day higher than the designed capacity of 3,000 tonnes/day, marking its best level ever.
- Based on the transformation measures for the West Mine, NFCA improved the efficiency of equipment and staff, optimized the integrated management of trackless equipment and production and achieved unattended operation and duty for tramcars and drainage systems, guaranteeing the stability and enhancement of various technical and economic indicators.

As at December, NFCA had processed 1,502,100 tonnes of ores and 27,708 tonnes of copper contained in copper concentrates on a cumulative basis.

## **Case: Reducing copper production cost through technical progress**

Since the Muliashi Leach Project of Luanshya commenced construction, all employees of Luanshya have been working painstakingly, steadfastly and skillfully and overcome multiple difficulties in construction and operation to improve the production and process, thereby consistently boosting the product quality and economic benefits of Luanshya. In 2017, Muliashi Leach Project produced a total of over 40,600 tonnes of copper, and its economic and technical indicators reached the best level since it was put into production, with the cost of copper decreasing by US\$249 per tonne and the revenue hitting record high, fully meeting the designed production capacity and standards.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

**Case: Focusing on product quality to improve production rate of Grade-A copper**

In order to improve product quality and enhance product yield rate, Huachin Metal Leach SA organized experts and front-line production staff to jointly study key processes in the production of Grade-A copper and improve the product yield rate.



Grade-A copper products

- Strengthening liquid management to improve the clarity of leaching operation; and enhancing the open running of electrolytic barren solution to ensure the electrolyte meeting the standards for Grade-A copper;
- Studying supporting facilities and equipment for Grade-A copper and striving to achieve stable mass production;
- Intensifying intrinsic and extrinsic quality management of copper cathodes;
- Ensuring additive uses to reduce lead content.

In 2017, the Grade-A copper production rate of Huachin Leach reached 100%.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Solving the difficulties in industrialized production of copper-cobalt alloys through scientific and technological cooperation**

Scientific and technological cooperation is a key measure for an enterprise to improve its resources utilization rate and achieve rapid development. In 2017, CCS cooperated with a well-known Chinese research institute in the industrialized production of copper-cobalt alloys to leverage on their respective advantages. After repeated innovations and attempts, they successfully developed the cobalt converter slag recycling project and put it into operation. The first copper-cobalt alloy products containing 10.56% cobalt produced by the project marks that the Group has become the first enterprise in the world with technologies on comprehensive recycling of metallic cobalt through the industrialization of “cobalt matte – magnetic separation” technologies.

The cobalt converter slag recycling project consists of two sub-projects known as the converter slag reduction furnace and the high grade cobalt matte metallurgy. The converter slag reduction furnace project has an annual treatment capacity of 100,000 tonnes of converter slag from copper smelting. The high-grade cobalt matte metallurgy project has an annual processing capacity of 50,000 tonnes, including 10,400 tonnes of copper-cobalt alloy and 34,700 tonnes of copper concentrate. Through effectively improving the comprehensive recycling and utilization of valuable metals, the converter slag reduction furnace project significantly boosted the copper-cobalt alloys output and enhanced the profitability and market competitiveness of CCS.



cobalt converter slag recycling project

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 1.3 Win-win cooperation

The Group insists on achieving mutual benefits, harmony and win-win results with partners. Following the principles of fairness, openness and impartiality and the code of conduct of being high-efficient and transparent, the Group has consistently enhanced supply chain management, emphasized complementary advantages with partners and continuously deepened cooperation to achieve all-win results.

The Group intensified supply chain management and set standards for supplier screening and management. When selecting suppliers, the Group takes into consideration the compliance procedures, the quality of products supplied, the delivery period, product prices, after-sale services and other factors to evaluate potential suppliers. If necessary, it arranges on-site inspection and reviews on suppliers before determining probationary suppliers. The Group also conducts dynamic management on qualified suppliers and pays attention to the performance of environmental and social responsibilities by suppliers. If a supplier is involved in any violation of supplier management standards, environmental pollution, employment of child labour or forced labour, the Group will issue warnings to the supplier or cancel the qualification of the supplier based on the degree of violation. Through the above measures, it effectively improved the performance of responsibilities by suppliers and guaranteed the stability and high efficiency of its supply chain.

In addition, as its principal operations are in overseas developing countries, the Group attaches great importance to promoting local economic development in the places where its projects are located. We continuously increase localised procurement and expand the scope of localised procurement by giving priority to local suppliers who meet our selection standards and establish long-term stable cooperative relationship with them. In order to assist local suppliers to improve their management and the quality of their products and services, we actively engage in technical and business cooperation with local suppliers and urge them to fulfill their environmental and social responsibilities through our influence. In this way, we promote the local economic and social development while pursuing our own development.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Participating in the International Conference on Geology, Mining, Mineral and Groundwater Resources of the Sub-Saharan Africa**

During 11 to 12 July 2017, NFCA participated in the International Conference on Geology, Mining, Mineral and Groundwater Resources of the Sub-Saharan Africa held in Livingstone, Zambia as a delegation dispatched by sponsors. The conference was held by the University of Zambia with the theme of “Opportunities and Challenges Ahead” with the purpose to build a platform for scholars, enterprises and policy makers to conduct discussions and exchanges and create more space for resources development and regional development.

NFCA dispatched 3 groups to participate in discussions on geology and mining. It also invited representatives from Sandvik, a strategic partner on the Southeast Mine, relevant experts from the University of Science & Technology Beijing and well-known hydrogeological professors from Copperbelt University as advisers to enrich and improve the contents of the topics for discussion. During the conference, the participants of NFCA displayed the automation and informatization plan for its Southeast Mine, the paste filling method as well as the hydrogeological conditions and water conservancy plan for Chambishi mines to representatives present at the conference. The automation and informatization plan for its Southeast Mine was highly recognized and appraised by representatives present at the conference and promoted the exchange and application of advanced mining technologies in Zambia and even the whole African region. The outstanding work performance of NFCA was appraised by the Minister of Mines of Zambia, the Minister of Communications and Transport and acting Minister of Higher Education and other high-ranking officials of the Zambian government.



President Edgar Lungu of Zambia attends the opening ceremony of the conference



Display of the automation and informatization plan for the Southeast Mine

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

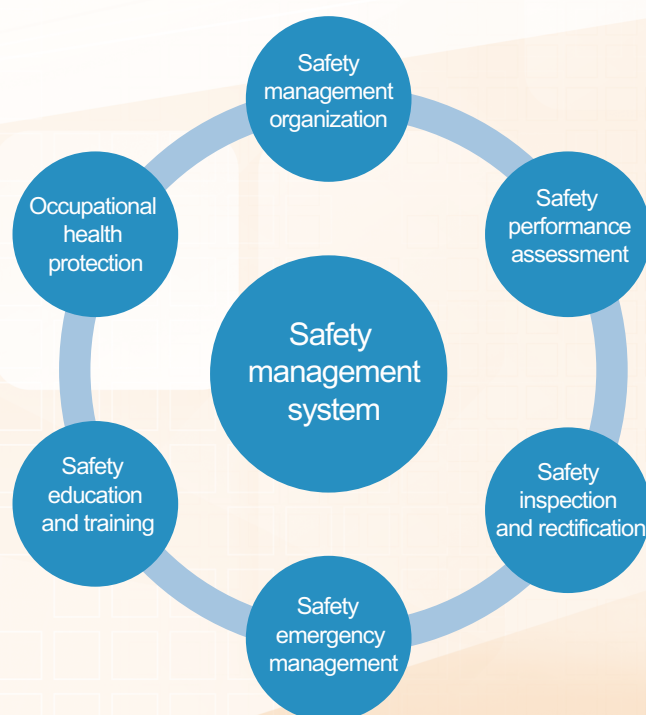
## 2 SAFE DEVELOPMENT

The Group strictly abides by the laws and regulations of the PRC, Zambia and the DRC in relation to production safety. Following the philosophy that “production safety underpins the existence of an enterprise”, the Group gives priority to safety and focuses on prevention of safety risks. To this end, it has consistently enhanced its safety management system and operation safety to create a healthy and safe working environment, endeavoring to achieve the target of “zero injury” and set a good corporate image.

During the Reporting Period, there was no litigation against or corresponding penalty imposed on the Group due to violation of safety-related laws and regulations, nor was there any work-related fatality or occupational disease.

### 2.1 Safety system

The Group strictly abides by the Mines and Minerals Development Act No.11 of 2005, the Factories Act Chapter 441 of the Laws of Zambia, the Mining Code of the DRC (Law No. 007/2002 of 11 July 2002) and other relevant laws and regulations relating to production safety. It also constantly improves the safety management system and promotes systematic, normalized, standard and scientific safety management through safety management organization, safety performance assessment, safety inspection and rectification, safety emergency management, safety education and training and occupational health protection, thereby effectively facilitating the virtuous cycle of production safety with early prevention and proactive actions to prevent serious safety accidents.





# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

Safety management organization	The Group arranges responsible persons in charge of production safety based on position levels, with general manager as the primary person in charge of production safety and the responsibilities of persons in charge of production safety at all levels being clearly defined. It establishes a safety and environmental protection department as special safety management function and allocates a reasonable number of full-time safety management personnel to form a safety management system covering the general manager, the safety and environmental protection department, workshops and grass-root teams to guarantee production safety.
Safety performance assessment	The Group establishes the production safety performance system and assessment mechanism for persons in charge of units at all levels and conducts overall appraisal on safety management system, safety accident performance, potential hazards inspection and rectification as well as education and training on safety to increasingly improve safety management performance.
Safety inspection and rectification	The Group follows the principle of “potential hazards amount to accidents” and pays continuous attention to safety inspection and rectification. It actively conducts identification, assessment and control on sources of danger and forms a safety inspection and rectification management model with self-inspection of departments and monitoring and inspection by the safety and environmental protection department. It will also publish the contents of safety inspection and the rectification results to promote monitoring and management, discover and eliminate potential hazards in time and prevent and reduce safety accidents.
Safety emergency management	Based on the characteristics of production and operation, the Group establishes a mine rescue team, formulates various emergency plans and proactively conducts exercises, effectively improving the capability of the rescue team and relevant departments to cope with safety incidents.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

Safety education and training	The Group establishes a “three-tier” safety training system consisting of enterprise, workshop and shift to provide staff with induction training, routine safety training and special operation training. It also conducts regular qualification inspection, assessment and issuance of certificate for special operation personnel. In addition, the Group regularly conducts the “safety promotion month” and safety skills competitions to enhance staff’s safety awareness and skills.
Occupational health protection	In addition to ensure its plants conforming to local occupational health standards, the Group consistently improves working conditions and environment of its overseas operations. It also regularly assesses risk factors relating to occupational diseases and provides appropriate labour protection articles and occupational health examination to staff exposed to occupational disease risks to prevent them from occupational diseases.

## 2.2 Safe operation

The Group firmly follows the business philosophy of “safe and green development” and the principle of “safety first and prevention first”. Risk identification and risk management are intensified in terms of production safety and contractor safety to avoid accidents in production and create a healthy and safe working environment for staff.

The Group attaches high importance to safety operation and management. It adopts advanced, mature and reliable process and equipment and formulates targeted standard operating procedures on process and equipment. It sets eye-catching safety signs for the areas and equipment prone to accidents or endangering the safety and health of personnel to avoid safety accidents in an all-round way. Safety management and shift responsible persons hold a meeting before changing shift every day to explain key potential risk points before each operation and conduct operation protection. For special operation, safety management will check special operation files, operators’ qualification and on-site equipment safety on time.

The Group also pays attention to safety management on contractors. It requires contractors abiding by local laws and regulations as well as relevant safety rules of the Group. Prior to the construction of projects, we assist contractors in preparing the risks assessment report to clarify their safety responsibilities and safety protection measures. During the construction of projects, we regularly or irregularly visit contractors’ site and conduct safety quality check for critical sections. After the construction of projects, we conduct completion acceptance and overall assessment on contractors covering their safety performance.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Production Safety Month**

In June 2017, the Group actively responded and conducted promotion and education activities under the “Production Safety Month” with the theme of “strict implementation of primary responsibilities for safe production”. The activities were based on its actual conditions towards grass-root levels and focused on reform and development, safety management, accidents prevention as well as safety regulations and knowledge.

- Conducted composition competition with the theme of “My Suggestions on Production Safety” to promote concepts on safety and civilization: The composition covers safety management, safety technology, safety culture and emergency rescue. It effectively facilitates the promotion of production safety and knowledge popularization;
- Conducted trainings on production safety to popularize knowledge on production safety: All companies conducted trainings and competitions on safety knowledge with rich contents in various forms based on their own characteristics, which effectively popularized safety knowledge and advanced production safety concepts;
- Organized featured promotion activities on the Production Safety Month to create a strong production safety atmosphere: All companies closely followed the theme of the activity and conducted various featured promotion activities with display panels, banners and other media and carriers to create a production safety atmosphere;
- Deeply analyzed accident cases to sound safety alarms at every moment: All companies organized staff to watch warning education films on accidents and shock them by reproducing accidents. Meanwhile, it conducted analysis on accidents of all companies to learn from accidents, sound alarms and fully prevent and curb various accidents;

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

- Conducted emergency exercises on accidents to improve emergency rescue capability: For roof and wall collapsing, falling accidents, machinery injuries, hazardous chemical substance leakage, fire disasters and other types of accidents in metal mines, metal smelting and processing and other industries with high risks, all companies organized emergency exercises at different levels in various forms;
- Conducted warning on safety risks and investigation on potential hazards: All companies conducted special promotion on the “dual prevention” mechanism on graded risks management and control and potential hazards investigation to lead staff in establishing risk awareness and mastering knowledge on graded risks management and control and potential hazards investigation. They actively conducted potential hazards investigation and publicized significant pollution resources and potential hazards to enhance the staff’s capability in significant pollution resources monitoring, management and control and significant potential hazards identification and investigation.



Luanshya provides production safety training to Zambian staff



Luanshya organizes practice exercises of Baluba underground mine rescue team and fire-fighting exercise at Leach Plant

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Enhancing safety efforts to ensure smooth overhaul**

On 16 December 2017, CNMC Huachin Mabende Mining SA conducted the largest overhaul since its putting into production with all-staff participation according to its production operation and equipment maintenance plans.

As the overhaul involves lots of high-risk operations, the company prepared on-site overhaul plans and emergency rescue plans on high-risk operations in the overhaul before its commencement. It also clarified the responsibilities of staff at all levels to ensure the fulfillment of responsibilities by specific persons and the implementation of safety work. During the overhaul, the company enhanced on-site safety management. The responsible person for operation held meetings before changing shift and inspected the implementation of safety measures. The company also focused on the monitoring and protection on special operation sites, such as hot work, restricted space operation, aerial operation and lift operation, to ensure all operations are conducted with the full implementation of safety management rules based on the overhaul plan.

With the careful organization by the company leaders and the close cooperation of all staff, it completed all overhaul tasks ahead of schedule without any safety accidents or the violation of regulations. It effectively guaranteed the safety of staff and equipment and successfully achieved the expected overhaul targets.



Acid leach tank overhaul and cleaning



Electrowinning cell overhaul and cleaning

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Luanshya mine rescue team wins runner-up in Zambian National Mine Rescue Competition**

On 29 July 2017, Luanshya mine rescue team won the runner-up in the Zambian National Mine Rescue Competition held in Kafue City, Zambia.

The competition was jointly hosted by the Zambian Mines Authority and the Zambian Chamber of Mines with the participation of 21 rescue teams from major mines in Zambia. After regional preliminary matches, the mine rescue team of the company and other five strong teams made to the finals held in Kafue. The mine rescue team of the company finally won the runner-up with their sophisticated technology, proficient coordination and indomitable persistence in the intense competition in simulative disaster relief and other matches in the field.

The outstanding achievement is attributed to the strong support from the company. The management of the company attaches great importance to mine safety and fully guarantees capitals, apparatus and training hours for the team. The mine rescue team of the company dates back to the 1930s and is one of the few earliest mine rescue teams in Zambia. The team currently consists of 12 members with over five years of working experience in mines and all of them have passed the national certification on mine rescue in Zambia. The team keeps high-intensity physical and skills training and regularly conducts endurance training on weight walking for 10,000 meters. It also studies the Mines Rescue Procedures of Zambia and other relevant rescue theories to consistently improve the overall theoretical level and practical skills of the whole team. The outstanding achievement made in the mine rescue competition fully demonstrated the capability of the company's mine rescue team. It is also an objective test on the comprehensive mine emergency rescue capability of the company.

In the competitions held in previous years, both Luanshya, NFCA and CCS won championships in several occasions.



Photo of competition participants



Participant team accepts review before competition

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 3 STAFF WELLBEING

Talents are the cornerstone for the survival of an enterprise. The competition among enterprises fundamentally is the competition for talents. The Group adheres to the talent idea of “people-oriented, harmonious advancement, and joint development”, guarantees the legitimate interests of all staff and creates an excellent working environment and career development platform for the staff to promote progress and development of the staff together with the enterprise and effectively support the overseas development strategies of the enterprise.

### 3.1 Staff employment

The Group strictly abides by laws and regulations relating to employment in the PRC, Zambia and the DRC and actively implements the “talents internationalization and localization” strategy. On condition of equal and normalized employment, it has established fair and reasonable recruitment processes and remuneration systems. Besides, it also strengthens the communication with local labor unions and gives play to their active roles in “coordinating relations, communicating information and solving conflicts” to guarantee that every staff is reasonably treated and earnestly safeguard the legitimate interests of Chinese and foreign staff.

During the Reporting Period, the Group had no material violation of employment-related laws and regulations.

<b>Employment system</b>	<b>Management measures</b>
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Recruitment and dismissal	The Group strictly abides by the Industrial and Labour Relations Act (1993), the Minimum Wages and Conditions of Employment Act (2012.07), the Employment Act Chapter 268 of the Laws of Zambia, the CODE DU TRAVAIL (2002.02), the Occupational Health and Safety Act No.36 of 2010, the Workers Compensation Act No.10 of 1999 and other laws and regulations. It has formulated internal regulations on employment to set forth lawful employment and dismissal requirements and to rule out the use of child labour. Meanwhile, it follows the principle of openness, equality, competition and merit-based enrollment in selecting and promoting talents and enters into labor contracts with staff after employment. In 2017, the Group has entered into a labour contract with each and every staff.
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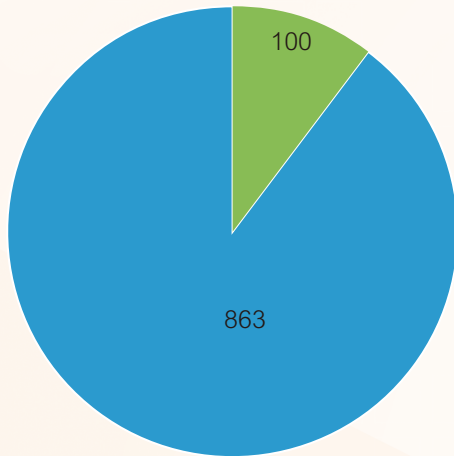
# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

<b>Employment system</b>	<b>Management measures</b>
Remuneration	The Group revises and improves the Measures for Management of Salary. It provides staff with competitive remuneration systems and reasonable incentive mechanisms, contributes to statutory social insurances in full on a regular basis, and provides subsidies for overtime working, night shift and high-temperature operation.
Performance assessment and promotion	The Group has established an open and transparent mechanism for staff assessment and promotion to guarantee fair assessment and reasonable promotion of each staff during the employment.
Attendance and holidays	In strict adherence with the Industrial and Labour Relations Act and other regulations of Zambia, the Group guarantees the working hours of 45 hours per week and statutory holidays for foreign staff and strictly prohibits forced labour. Besides, it also arranges holidays with local characteristics based on the custom in Zambia and the DRC to meet the holiday demands of local staff.
Equality, diversification and non-discrimination	The Group follows the equal, diversified and non-discriminatory principle and gives equal treatment for staff of different nationalities, races and genders. It treats staff with sincerity, respects the culture, custom and personality of foreign staff and gives priority to local staff in Zambia and the DRC in respect of employment to improve the localisation rate of staff in the Group.



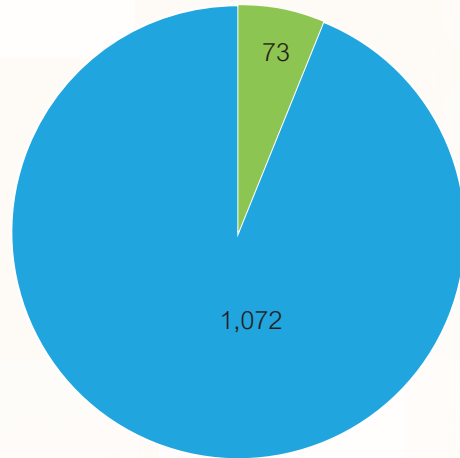
# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

Staff of NFC Africa Mining PLC



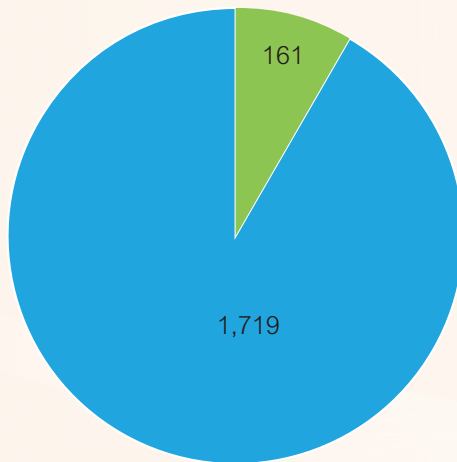
■ Chinese staff ■ Local staff

Staff of CNMC Luanshya  
Copper Mines PLC



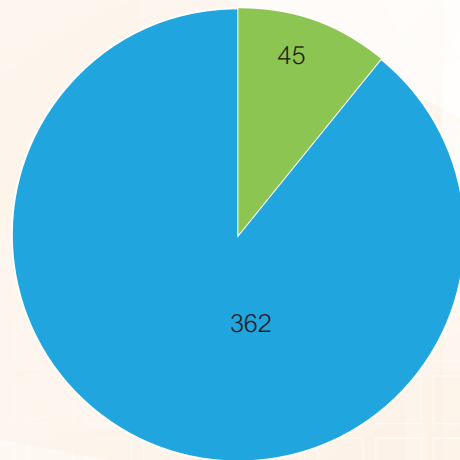
■ Chinese staff ■ Local staff

Staff of Chambishi  
Copper Smelter Limited



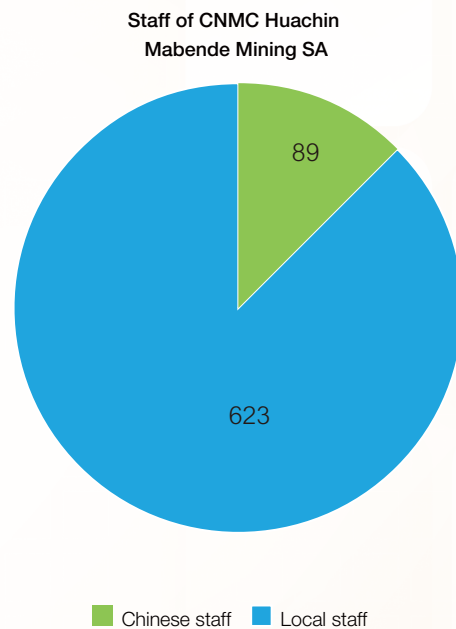
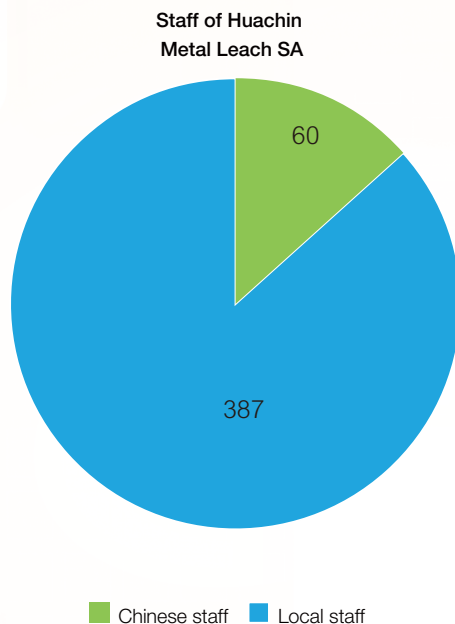
■ Chinese staff ■ Local staff

Staff of Sino-Metals  
Leach Zambia Limited



■ Chinese staff ■ Local staff

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)



## 3.2 Staff development

The Group continues to promote the strategy of bolstering enterprise with talents and prepares internal management systems on staff training and development. It spares no efforts to establish a multi-level staff training system to meet the demands of staff at different positions, expand the career development channel of staff, improve the professional and ethical quality of staff and enhance their sense of proudness and accomplishment.

In order to meet the demands in international capacity cooperation, the Group pays special attention to local staff cultivation and development in the country where its programs are located. The Group continues to improve and enhance the staff cultivation mechanism and gradually establishes a cultivation system covering professional knowledge and skills on technology, quality, environmental protection and safety. It also strengthens the cross-cultivation of staff with a view to helping the staff find their best suited positions for deep cultivation and developing a dynamic management mechanism on staff cultivation and development through targeted and fostering and toughening at different positions. Meanwhile, the Group works out scientific and

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

feasible staff assessment methods which focus on promoting staff with high ideological quality and strong competence to replenish the high-end talent team, make local staff an integral part of human resources of the enterprise and advance the progress of “localization”. The Group also actively organizes staff to participate in trainings and all kinds of competitions on vocational skills, thereby providing staff with valuable opportunities to improve professional knowledge and skills. In addition, the Group also hosts regular staff seminars and sets up a general manger reception day to help staff clarify development orientation and let the leadership learn the state of mind of the staff so as to further facilitate talent cultivation and development of the enterprises.

## Case: “Going out” Vocational education

The Group encouraged staff to actively participate in the “going out” vocational education activities to improve staff’s skills and provide opportunities for their future development.

On 7 September 2017, the training course on thickener operation under the “going out” vocational education officially started in SML. The training focused on the systematic theories concerning the thickener and its standard operation process. Local employees with relevant experiences and in need of relevant skills for their positions were arranged to participate in the training. After over one month of learning, the trainees were not only equipped with advanced knowledge on thickener operation but also amazed by the training methods of lecturers. They indicated that they would put the knowledge into practice. These vocational trainings enhanced the loyalty of employees to the enterprise as well as improving their professional expertise.



Training on thickener operation

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: NFCA initiated the new training model of integrated “theory learning + situation simulation + field practice”**

NFCA focuses on building a digitalized mine and strives for the “large scale, intelligence-based and digitalized” transformation on a consistent basis so as to reduce labor cost and improve corporate competitiveness.

From November 2016 to March 2017, the company conducted theoretical training on equipment trainers and introduced equipment principles and lecturing skills in such course to enable equipment trainers to generally master the working principle of equipment, the functions of all components and repairing and maintenance knowledge. After 4 months of theoretical training, the company designed independently and constructed the training base for trackless equipment and purchased various equipment and production systems for the trainees to conduct stimulation exercises so as to master the operation gist. It also completed the preparation of 12 standard operation processes. After 4 months of theoretical study and over 5 months of simulation practice, all the trainees were quite proficient in the equipment principles and operation skills. In addition, based on its actual production conditions, the company established a field practice base at the abandoned mining pit in the middle of the West Mine with -400 meters to conduct field practice of operations such as tunneling, powder charging, blasting and deslagging.

Through the new training model of “theory learning + situation simulation + field practice”, the company successfully cultivated a bunch of outstanding trainers who will shoulder tasks on training Zambian staff, thereby laying a solid foundation for the targets of mining safely, with high-efficient and at low-cost in the Southeast Mine.



Special training—on Automatic Chain Conveyor at SANDVIK factory in Finland



Underground simulative production training—DD422 idrilling jumbo conducts drilling

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 3.3 Care for staff

The Group actively carries out activities on staff caring, safeguards the physical and psychological health of employees and helps them solve difficulties at work and in life through various means, aiming to improve the staff's sense of happiness and create a harmonious corporate atmosphere.

The Group provides staff with pension, medical, housing, transportation and other welfare and subsidies and offers medical services to family members of registered staff with a view to sharing development results of the enterprise with its employees.

The Group establishes sports facilities such as basketball courts and football fields and provides sports equipment for the staff to enhance their physical fitness. The Group proactively improves medical guarantee and intensifies publicity, prevention, monitoring and treatment of malaria, dengue, AIDS and other infectious epidemics in certain regions in Africa. It also arranges regular physical examination for the staff to guarantee their physical health to the hilt. All regular employees of the Group received physical examination in 2017.

In order to enrich the spare time of the staff, the Group organizes holiday and festival celebrations, basketball games, badminton games, tug-of-war and other activities to enhance mutual understanding and friendship among the Chinese and foreign employees.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Chinese enterprise continued my family's feelings on mining**

The 33-year-old Enkhma has been working in NFCA for 14 years. His family moved to Copperbelt Province, a well-developed mining area as early as the period when mining was under state control. Enkhma succeeded his father as a miner at Chambishi after high school. Without any skills, he managed to become a regular assistant worker in the crane workshop with his fortitude six months later. Due to family difficulties and the high tuition fee, Enkhma could not afford to learn crane skills and could hardly fulfill his dream of becoming an outstanding miner. In 2005, the company launched the “training and learning assistance program for staff” and Enkhma was granted the opportunity for off-job learning for two years at Luanshya Vocational Training School. During the two years of learning, the company subsidized Enkhma with a tuition fee of 8,000 kwacha and retained his position to fully assist Enkhma in fulfilling his ideal of learning professional skills and becoming an outstanding talent.



Enkhma had been caring about the company during his study and wished to repay the company with his efforts. He was promoted to be a technician right after the completion of training. He applied for in-service education at the business college of the Copperbelt University in 2009 and successfully graduated five years later. He was promoted to be a front-line production manager shortly after his graduation. Enkhma always remembers that the company assisted him in receiving secondary and junior college education whereby he grew into a skillful and educated talent respected by colleagues as well as the pillar of his family from an ordinary high school graduate.

Enkhma turned his gratitude into deep trust and love to the company and has refused lucrative invitations from other mines. Over the past years, he witnessed the production resumption at the Main Mine and the launching of the West Mine as well as the full-swing construction of infrastructure in the Southeast Mine at present. He indicated that all local staff of NFCA consider themselves as a part in the development of the Southeast Mine and they are proud to tell their relatives and friends that “it's our mine”. The mutual trust and deep feelings between Enkhma and the company are the very motivations that drive the common development of the causes between China and Zambia.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 4 ENVIRONMENTAL PROTECTION

In response to the initiative of “a community of shared future for mankind”, the Group highly values environmental protection at the places of its operations. Upholding the environmental protection concept of “cherishing the Earth, valuing responsibility”, the Group continuously conducts environmental and resources management under the guidance of “environmental protection, long-term development” and in the principle of green development, to make contributions to clear water and green mountains.

### 4.1 Environmental management

The Group has established a long-standing environmental protection mechanism featured by “prevention first, protection priority and comprehensive treatment” in strict accordance with the Environmental Protection and Pollution Control Act, Mines and Minerals Development Act No.11 of 2005, Law No. 007/2002, the Mining Code) (2002.07.11) and other environmental laws and regulations to constantly enhance the Group’s environmental management and set up a good corporate image.

Based on its own conditions, the Group has established and improved the environmental management system and executed a series of rules and regulations including the Measures for Management of Environmental Protection of China Nonferrous Metal Mining (Group) Co., Ltd. It has also set up the environmental assessment plan and goals and clarified the detailed rules on management and assessment. The Group has established a Safety and Environmental Protection Department and formed an environmental management system composed of the production safety committee and mine manager as leadership, the safety and environmental protection department as the daily management department and environmental protection officers as the environmental supervisors of workshops to be responsible for environmental protection and assign responsibilities to designated personnel in key areas to ensure full coverage of supervision and management. Meanwhile, the Group has intensified environment inspection efforts, placed the focus of supervision on operation of pollution prevention and treatment facilities and carried out and followed up the rectification for problems in a limited period. Moreover, the Group strengthened process innovation and technical improvement, emphatically solved prominent environmental protection problems, and tried its best to recycle “three wastes” to reduce pollutant emissions and effects of corporate operation on the environment.

During the Reporting Period, the Group did not record any significant event that was subject to litigation or corresponding penalty due to violation in respect of environmental issues.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## Exhausts Management Measures

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- As for copper leaching process, there is no emission of SO<sub>2</sub>, NO<sub>x</sub>, etc. in the production process to prevent generation and emission of exhausts at the source;
- Strengthening control of copper smelting production process and stabilizing the conditions of smelting furnace to control smoke emission;
- Strengthening control over preparation of strong sulphuric acid to enhance sulfur utilization ratio and installation of electric precipitator and online monitoring equipment to reduce and monitor the emissions of pollutants, resulting in compliance with the requirements on emission indicators of the environmental protection authorities of Zambia;
- Strengthening dust control by sweeping, watering, coverage and other means to effectively reduce dust in mining, vehicle transportation, storage on stock ground and other operations.

## Sewage Management Measures

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- For copper leaching process, covering the tailings pond with HDPE film and building an integrated sewage recycling system to fully recycle the metallurgical sewage generated in production, thus saving water resources and achieving “zero” emission;
- For copper smelting process, most production sewage enters the slag flotation workshop before ultimate evaporation in the tailings pond;
- Office and domestic sewage is discharged after treatment in septic tank;
- Regular sampling and submission for inspection for the water bodies surrounding the plants and in underground water monitoring wells, conducting comparison and analysis with reference to the standards of the places of project operation and issuing analysis reports.



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## Solid Wastes Management Measures

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- Adopting new processes and technologies to reduce solid wastes;
- Conducting ground hardening and taking protection and isolation measures for the places producing solid wastes to prevent soil pollution;
- Strict design, construction, transformation and operation of high-standard smelting slag and tailings pond for proper storage of tailings from smelting and leaching to prevent environmental pollution;
- Comprehensive utilization of solid wastes, e.g. recycling available materials including gypsum residue, using mining mullock for direct filling of goaf areas, proper storage of ores temporarily idle for future use; delivering unavailable materials to special companies for treatment;
- Unified collection of domestic waste generated in office operation and employees' camps and transporting the same to the garbage disposal plant for treatment.

## Ecological Environment Measures

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- Conducting environmental impact assessment for development of new projects and strict implementation of environmental and ecological protection measures during project construction;
- Preparation of mine field plan and mine closure plan according to the geological conditions of mine to effectively control the effects of mining on the environment and building an ecological restoration and conservation model to maintain the ecological system of mine;
- Regular engagement of professional institutions to conduct survey and detection for the ecological environment surrounding operation projects to get aware of project effects and provide basis for improvement of processes and enhancement of environmental performance;
- Setting a dedicated muffler device for high noise equipment and keeping away from the surrounding living quarters of residents and employees to prevent noise pollution;
- Timely payment of the environmental funds in strict accordance with laws and regulations, disseminating the environmental protection philosophy and systems of the Group among employees and the communities, and carrying out tree planting and other environmental protection activities.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)



Water quality testing in the plant



Water quality testing surrounding the plant



Mine with a green ecological environment



Green plant in forest

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Construction of a stone plant to turn waste into wealth**

A large amount of barren rock is generated in underground copper mining and exploitation. In addition to filling for mines, a part of barren rock is required to be transported to the ground surface and piled at a designated site. The barren rock not only occupies space, but also generates dust and affects the environment. To effectively utilize barren rock in a reasonable way and reduce effects on environment, NFCA invested in construction of a stone plant. After treatment with crushing equipment in the stone plant, the barren rock generated in mining will have a smaller particle size and more uniform shape and be used for construction of roads in wells and tailings pond in the mine lot, and the extra barren rock can be sold to other companies, which enables effective utilization of solid wastes and creates certain economic value. In 2017, the stone plant crushed 200,000m<sup>3</sup> of barren rock and made a profit of approximately USD1.70 million.



Newly built stone plant

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Accelerated evaporation of clear liquor in tailings pond**

The annual average evaporation capacity of DRC is 2,241mm and the dry season is from the middle of April to the middle of November, during which there is scarcely any rainfall. Huachin Leach reasonably utilizes the climate superiority suitable for evaporation of water and accelerates the evaporation of clear liquor in tailings pond through increasing the evaporation surface area of liquid. By leveraging on the trapezoid terrain in the dry beach area of the old tailings pond, the company built three interception dams of 2m wide and 1m high in the tailings pond using the leaching residue in the pond to form four evaporation fields. Then, the clear liquor in the new tailings pond was pumped to the evaporation fields built in the old tailings pond before flowing to the deep water area after a period of evaporation and return to the production system. Through acceleration of the evaporation speed of raffinate in the tailings pond, the water evaporation amount and water newly flowing into the system was basically maintained balanced without the need to add lime for neutralizing treatment, which reduces the loss of sulfuric acid and copper, cobalt and other valuable elements in the system fluid and creates good environmental and economic benefits.



Aerial photo of the new and old tailings ponds

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## Case: improvement of tailings pond to eliminate hidden danger for environmental accidents

At taking over the mine in Zambia, the Group was confronted with old facilities and insufficient capacity of tailings pond, which would also cause a series of environmental problems and even cause leakage and other accidents. Upon formal taking over the mine, the Group proactively conducted governance of tailings pond, capacity expansion, etc. for the tailings pond. NFCA conducted reformation of capacity expansion for Mousaka West Tailings Pond by heightening the dam by 4m, increasing the capacity by 5,734,300m<sup>3</sup>; Luanshya performed a design on capacity expansion and reclamation and carried out reinforcement for Muliashi Tailings Pond, and HDPE film was used for anti-seepage treatment; After punning the bottom of tailings ponds 7 and 8, CCS laid HDPE boards to form a tailing pond and the liquid following into the tailings pond will be recycled after sedimentation. The governance and capacity expansion for tailings ponds solved the existing problems and effectively reduced the risks of environmental accidents.



15#D Environment friendly tailings pond

Table of Emission Data in 2017

Type of emission	Unit	Value
Total emissions of SO <sub>2</sub>	Tonne	3,880.9
Total emissions of NO <sub>x</sub>	Tonne	36.3
Total emissions of dust	Tonne	91.0
Total amount of sewage	0'000 Tonnes	1,930.3
Intensity of sewage	Tonne/RMB0'000	15.4
Total emissions of sewage	0'000 Tonnes	113.3
Total amount of hazardous wastes	0'000 Tonnes	427.7
Intensity of hazardous wastes	Tonne/RMB0'000	3.4
Treatment ratio of hazardous wastes	%	100
Total amount of non-hazardous wastes	Tonne	1,886.0
Intensity of non-hazardous wastes	Tonne/RMB0'000	15.0
Treatment ratio of non-hazardous wastes	%	100
Total emissions of greenhouse gases	Tonne	73,165.2
Intensity of greenhouse gases	Kg/RMB0'000	58.3

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 4.2 Resources Management

As a metallurgical and mining enterprise, the Group shoulders the corporate mission of “development of resources, contributions to the society” and aims at enhancement of comprehensive utilization of resources and reduction of the emission intensity of greenhouse gases in respect of resources management. Through implementation of effective resources management, the Group has improved the comprehensive utilization ratio of resources in mining, ore processing and smelting to reduce the use of energy and water resources and achieve comprehensive sustainable development of enterprise, industry and society.

### Operation Management Measures

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- Thoroughly sorting through underground recoverable reserves by areas, drawing up production plan outline, and comprehensively utilizing of waste ore to enhance ore recovery and effectively prolong the life time of mine;
- Preparation of production technology transformation plan and improvement of production processes, equipment and facilities to reduce the energy consumption of high energy-consumption equipment including ball mill and pump and improve the operational stability of waste heat power station, Isasmelt furnace and other critical equipment;
- Preparation of monthly production plan and control goal of total energy consumption, and implementation of performance assessment to control energy consumption in an all-round and multi-level way, e.g. specifying fuels for vehicles and implementing quota allocation of fuels;
- Proactively conducting repair of obsolete parts and utilization of waste parts to utilize waste materials to the greatest extent.

### Office and Life Management Measures

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- Transformation of energy saving LED lights for mine lots and premises and installation of light-operated switches, time switches and other intelligent switches;
- Adopting natural lighting for production workshops, using natural light for office lighting wherever possible, and making sure that lights stay off when no one is around in the offices with poor natural light to eliminate the phenomena of empty office with lights and air conditioners on;
- Conducting publicity and education on energy saving and posting labels on energy conservation and emission reduction.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Adjustment of operation plan to reduce power consumption**

SML values enhancement of equipment operation effects and reduction of power consumption of equipment. The company conducted special research on the high energy-consumption ball mill and adjusted the operation plan to reduce power consumption. The expansion of the processing plant with a capacity of 1,000 tonnes was completed. Under the initial operation plan, a primary semi-automatic ball mill with a capacity of 2,000 tonnes simultaneously fed ores to two secondary ball mills with the specification of 400kW/500 tonnes for milling. Under the adjusted plan, two secondary mills were replaced with a single mill with one 400kW motor. The adjusted operation plan not only satisfies the requirements on grinding fineness and but also reduces power consumption, having created convenient conditions for maintenance and alternate operation of equipment.



Ball mill

## **Case: Reasonable utilization of underground water yield of mine to create environmental and economic benefits**

The Main Mine and West Mine of NFCA are rich in underground water yield of mine. Apart from the water used for underground production, the underground daily water drainage is 50,000m<sup>3</sup>. In order to effectively utilize water resources and avoid wasting the same, the company diverted the underground water to the surface pool with the volume of 10,000t. After clarification in the surface pool, the water will be used for production in processing plant and mine lot and certain underground water will be further purified and then used for domestic purposes. With the expansion of business scale of the company, the Southeast Mine is soon to be put into production. However, the underground water yield of the mine is too little to flow by itself and to satisfy the water demands in production. Therefore, the company worked with the design institute to divert the underground water yield in the Main Mine and West Mine to the Southeast Mine via pipelines as production water, which prevented the consumption of surface and underground water as well as achieving effective utilization of underground water yield, having generated good environmental value and economic value.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## Energy Consumption Data in 2017

Type of resource	Unit	Value
Diesel	Litre	14,187,473.8
Gasoline	Litre	149,842.3
Coal	Tonne	10,318.6
Coke	Tonne	1,276.1
Purchased electricity (mainly hydraulic power)	MWh	980,923.1
Total comprehensive energy consumption equivalent to standard coal	Tonne of standard coal	147,128.0
Intensity of comprehensive energy consumption	Kg standard coal/ RMB0'000	117.3
Total consumption of fresh water	0'000 Tonnes	2,732.4
Consumption intensity of fresh water	Tonne/RMB0'000	21.8

## 5 COMMUNITY ENGAGEMENT

As an enterprise committed to global development, the Group is well aware that development of enterprise depends on the strong support of the communities surrounding the place where project operations are located. While enhancing production and operation and financial performance, we have also formed a community of shared interests with local governments and communities to seek for mutual benefits through cooperation based on the inclusive corporate culture and to build a sustainable future together with the community.

### 5.1 Integration into Community

While scaling up and improving quality, the Group has paid consistent attention to the discharge of its social responsibility and eliminated doubts through sharing of development achievements ever since entering the African markets, having set up a good corporate image and contributed to the well-being of the society.

To give full respect to local religious faith and cultural tradition and remove the effects among different regions and cultures, the Group has set up a variety of communication channels for convenient communication with local governments, suppliers, residents and other stakeholders to narrow the gap between us and residents in community, and has formed a harmonious relationship thereby.



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

The Group has a special public relations department in place to deal with public relations between the enterprises and local places. By means of visit, press conference, invitation to visit, daily report, etc., the Group proactively strengthens communication and contact with the local government departments, regulators, social service agencies, community members and other stakeholders to understand their requirements and appeals. Meanwhile, in order to enhance the friendship between the PRC and Zambia and between the PRC and DRC as well as promoting cultural understanding, the Group has introduced Confucius Institute to provide language study opportunity for local employees. In addition, during early-stage preparations for the tailings pond of Southeast Mine of NFCA in Zambia, the Group energetically conducted resettlement and compensation for the Zambian residents in the area of tailings pond, built a 5km road and donated infrastructure materials to the local place, which was supported by the local government and residents.

## Case: Holding special lectures to promote cultural exchange

In 2017, Luanshya organized a number of special lectures on Chinese culture, religious culture in Zambia, folk cultures in Zambia, etc. The company selected senior lecturers to give lectures and help employees to understand and grasp cultural knowledge in a straightaway manner, and was thus recognized and praised by trainees. The special lectures effectively promoted the understanding of different cultures among Zambian and Chinese employees and improved their friendship with each other, providing a good support for the company to fit in with the local community.



Special training seminars

Summary Table of Special Lectures of CCS in 2017				
Time	Content	Lecturer	Site	Number of attendees
24/02/2017	Summary of Chinese Culture	Lu Hui	NFC Teaching Point at Confucius Institute of the University of Zambia	29
24/03/2017	Chinese Culture Series (I)	Wang Li	Teaching Point at Confucius Institute of the University of Zambia and Copperbelt University	18
30/05/2017	Labour Law of Zambia	Mrs. Shalya	Office of the Department of Labour of Kitwe	21
16/06/2017	Chinese Culture Series (II)	Wang Li	Teaching Point at Confucius Institute of the University of Zambia and Copperbelt University	39
07/07/2017	Mine Safety Laws and Regulations	Mr. Kabaka Mr. Churubwa	Mine Safety Department of Kitwe, Zambia	41
14/07/2017	Chinese Culture Series (III)			20
28/07/2017	Chinese Culture Series (IV)			20
11/08/2017	Chinese Culture Series (V)	Wang Li	Teaching Point at Confucius Institute of the University of Zambia and Copperbelt University	17
08/09/2017	Chinese Culture Series (VI)			16
22/11/2017	Basic Academic Education in Zambia	Mr. Kaonda	MEP, Kitwe	21
07/12/2017	Religious Culture of Zambia		MEP, Kitwe	
14/12/2017	Folk Culture of Zambia		Office of Religion and Folk Customs, Kitwe	

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## 5.2 Community development

The Group attaches importance to assisting community in its development. We help local places to form their power for sustainable development through donations to education, enhancement of local infrastructure conditions, proactive organisation and engagement in charitable activities and other means. We also practically discharge our corporate social responsibilities and share corporate development achievements with surrounding communities to achieve harmonious development.

Education is the foundation for eternal development. The Group knows very well that educational development closely relates with the future of the places of operations and even the country where the projects are located. While supporting educational development, helping improve education facilities and strengthening cultivation of teaching staff, we has also set up scholarship and grants to help poverty-stricken students to complete their study. The education supporting activities not only facilitated the development of local education and provided sustainable driving force for long-term development of local places, but also reserved potential talent resources for the Group's future development.

The Group lays emphasis on improvement of local infrastructure, medical and health conditions, etc. To be specific, investments were made for development of power supply facilities and all subsidiaries construct power supply facilities in accordance with standards. Such facilities will be handed over to local power supply enterprises upon recovery of investment by way of tariff to improve regional power supply conditions; the Group proactively builds highways to improve local travelling conditions and facilitate the transportation of personnel and materials to shorten the time for transportation and logistics; we vigorously support and participate in local hygiene and disease control programs and provide assistance or aid in construction of hospitals. We purchased advanced medical equipment and introduced exquisite medical technologies to improve medical and health conditions. Energetic efforts were also exerted on prevention of Aids, malaria and other diseases. Furthermore, the Group also actively supports the development of local medium and small sized enterprises and associated ore projects and fosters local businesses with the capacity for independent business operation to further promote regional economic and commercial development.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (CONTINUED)

## **Case: Renovation of school buildings to improve teaching conditions**

The significant disrepair and poor teaching conditions of Mwambashi Primary School severely affected normal teaching activities of the school. On learning the situation, SML decided to contribute ZMK456,622.4 for renovation of the buildings of Mwambashi Primary School, so as to allow local children to attend school. With the assistance of the company, Mwambashi Primary School took on an entirely new look and teaching conditions were greatly improved, enabling smooth implementation of teaching activities.



Newly repaired school buildings

## **Case: Assistance in drilling well to solve shortage of water**

KALAMBANGIRI Village in DRC suffers acute shortage of water due to its climate and terrain. Over decades of years, the villagers had to take water at a place 4km away on a daily basis. CNMC Huachin Mabende Mining SA, upholding the tenet of “development of enterprise, benefiting community”, solved the urgent needs of villagers by contributing USD60,000 to engage a professional well drilling company to conduct survey on water source and drill wells in the village.

In the morning of 1 September 2017, the two manually operated drinking wells drilled with the contributions of the company yielded water successfully. In addition, the company has also set a water tank with a volume of 5m<sup>3</sup> at each site where no well could be drilled and fill up such tanks with water with watering carts to ensure access of villagers at these sites to water without the weariness of long-distance shuttling for water. The ceaseless water flow from the wells put an end to the shortage of water for villagers and turned the “waterless” miserable village into a happy one “full of water”. The villagers of KALAMBANGIRI who had suffered a lot from the shortage of water sang and danced cheerfully to celebrate the unforgettable moment.



Manually operated drinking well



Singing and dancing villagers

# REPORT OF THE DIRECTORS

The Directors present the annual report and the audited consolidated financial statements of the Group for the year ended 31 December 2017.

## PRINCIPAL ACTIVITIES

The Company is an investment holding company. The Company's subsidiaries are principally engaged in exploration, mining, ore processing, leaching, smelting and sale of copper cathodes, blister copper and sulphuric acid. There has been no significant change in the Group's principal activities for the year ended 31 December 2017.

## USE OF PROCEEDS FROM THE GLOBAL OFFERING

The Company was listed on the Hong Kong Stock Exchange on 29 June 2012. Net proceeds from the Global Offering have been and will continue to be used by the Group for the operations in Zambia, such as exploration and development of mines, construction of smelting plants, repayment of bank loans and replenishment of working capital, which are in compliance with the intended use of proceeds as disclosed in the section headed "Future Plans and Use of Proceeds" in the Prospectus.

In accordance with the intended usages as set out in the section headed "Future Plans and Use of Proceeds" in the Prospectus, the application of such proceeds up to 31 December 2017 was as follows:

Items	Net Proceeds (US\$'000)		
	Available	Utilised	Unutilised
Exploration and development of the Chambishi Southeast Mine	72,000	72,000	–
Expansion of the Chambishi Copper Smelter	48,000	48,000	–
The Muliashi Project	12,000	12,000	–
Development of the Mwambashi Project	12,000	12,000	–
Acquisitions of companies with existing exploration rights and additional mining assets	37,000	–	37,000
Repayment of certain existing loans	36,000	36,000	–
Working capital and other general corporate purposes	30,770	30,770	–
<b>Total</b>	<b>247,770</b>	<b>210,770</b>	<b>37,000</b>

# REPORT OF THE DIRECTORS (CONTINUED)

## RESULTS

The Group's operating results for the year ended 31 December 2017 and the financial position of the Group as at 31 December 2017 are set out on pages 130 to 228 in the audited consolidated financial statements contained in this annual report.

## DIVIDENDS

The Board proposes a payment of final dividends of US¢ 0.6124 per share for the year ended 31 December 2017.

## SUMMARY OF FINANCIAL INFORMATION

A summary of the consolidated results, assets and liabilities of the Group for the last five financial years, as extracted from the audited consolidated financial statements of the Group and the Prospectus, is set out on page 229 in this annual report.

## BUSINESS REVIEW

### Overview and Performance of the Year

A review of the business of the Group and analysis of the Group's performance using financial key performance indicators is provided in the Results Highlights and the Management Discussion and Analysis sections on pages 6 to 7 and pages 8 to 39 of this annual report.

### Environmental Policies and Performance

The Group attaches great importance to environmental protection. Under the guidance of "environmental protection and long-term development", the Group proactively promotes environmental management and resources utilization and carries out environmental protection activities to build a "green enterprise making contributions to clear water and blue sky". During the reporting period, there was no material event causing litigation or corresponding punishment against the Group due to violation of laws in respect of environment.

Particulars in relation to the Group's environmental policies and performance are set out on pages 70 to 106 in the "Environmental, Social and Governance Report" section in this annual report.

## REPORT OF THE DIRECTORS (CONTINUED)

### Compliance with relevant Laws and Regulations

Relevant laws and regulations that have a significant impact on the Group mainly include:

- (1) Mines and Minerals Development Act No. 11 of 2005 of the Laws of Zambia;
- (2) Environmental Management Act No. 12 of 2011 of the Laws of Zambia;
- (3) Employment Act Chapter 268 of the Laws of Zambia;
- (4) Explosives Act Chapter 115 of the Laws of Zambia and Explosives Regulations;
- (5) Factories Act Chapter 441 of the Laws of Zambia;
- (6) Occupational Health and Safety Act No. 36 of 2010 of the Laws of Zambia;
- (7) Workers Compensation Act No. 10 of 1999 of the Laws of Zambia;
- (8) Acte Uniforme Relatif au Droit des Societes Commerciales et du Groupement D'Intereteconomique of the Laws of DRC; and
- (9) Law No. 001/2018, the Mining Code of the Laws of DRC.

The Group has established and improved the manual for internal control in relation to overall business chains and management processes with subsequent monthly and annual supervision and review to ensure compliance with the relevant laws and regulations. For the year ended 31 December 2017, the Group had complied with relevant laws and regulations which had significant impact on the businesses and operations of the Group in all material aspects. During the year ended 31 December 2017, the Group has not been subject to any penalty due to violation of the aforesaid laws, regulations and other public policies.

Except for previous deviation from code provision A.2.1 of the CG Code, which is explained in paragraph headed "Chairman and Chief Executive" in this annual report, the Group has complied with the requirements under the Companies Ordinance, the Listing Rules, the SFO and the CG Code for, among other things, the disclosure of information and corporate governance. The Group has adopted the Model Code.

### Key Relationships with Stakeholders

The support and trust of our stakeholders is integral to the Group's growth and success. Our stakeholders include shareholders and creditors, employees and employee organisations, governments and regulatory authorities, the public communities, charities and non-government organisations (NGOs) and clients. We place emphasis on communications with our stakeholders and have established an open and transparent communication channel for each category of stakeholders to understand their expectations and requests.

## REPORT OF THE DIRECTORS (CONTINUED)

We continued to strengthen the quality and effectiveness of information disclosure, comply with applicable laws and regulations, and actively participate in public welfare activities, with the purpose of achieving mutual development and value sharing with our stakeholders. We have also formulated key indicators based on the focuses and concerns of different stakeholders to reflect our management performance on the above subject matters. Some of our key indicators include return on equity and payout ratio for shareholders and creditors; employee training frequency and turnover rate for employees and employee organisations; violations of laws and regulations and safety and environment performance concerned by the government; public opinion and corporate image concerned by the public; response rate on enquiries for charities and NGOs; satisfactory reports for clients etc.. Going forward, we will endeavor to improve our current policies, strive to maximise our stakeholders' value and achieve a mutually beneficial outcome.

### **Key Risks and Uncertainties**

A description of principal risks and uncertainties that the Group may be facing is provided on pages 16 to 17 in the “Management Discussion and Analysis” and “Corporate Governance Report” sections of this annual report.

### **Prospects**

Please refer to the Chairman's Statement on pages 4 to 5 and page 39 in the “Management Discussion and Analysis” section of this annual report.

### **Subsequent Event**

There are no other important events affecting the Group that have occurred since 31 December 2017.

## **BANK AND OTHER BORROWINGS**

Details of bank borrowings of the Group during the year ended 31 December 2017 are set out in note 25 to the consolidated financial statements.

## REPORT OF THE DIRECTORS (CONTINUED)

### CHARITABLE DONATIONS

Charitable donations made by the Group during the year ended 31 December 2017 amounted to US\$287,000. In addition, the Group subsidised schools and hospitals, provided financial aid for the construction and maintenance of public sports facilities such as football fields and swimming pools, and participated in programs to fight against malaria, AIDS and cholera, thereby earnestly fulfilling its social responsibility.



Donation of food to the infants of the local area by Luanshya



Donation of the waiting hall of Kitwe



Donation of children's entertainment facilities in Chambishi Village

### PROPERTY, PLANT AND EQUIPMENT

Details of movements in the property, plant and equipment of the Group during the year ended 31 December 2017 are set out in note 16 to the consolidated financial statements.

As at 31 December 2017, the Group did not own any properties for investment purposes or held for development and/or sale where one or more percentage ratios (as defined under Rule 14.04(9) of the Listing Rules) exceed 5%.



## REPORT OF THE DIRECTORS (CONTINUED)

### RESERVES

Details of change in the reserves of the Group during the year ended 31 December 2017 are set out in the consolidated statement of changes in equity.

### DISTRIBUTABLE RESERVES

As at 31 December 2017, the Company had distributable reserves amounting to US\$81,561,000.

### SHARE CAPITAL

There was no change in the share capital of the Company during the year ended 31 December 2017.

### PRE-EMPTIVE RIGHTS

There is no provision for pre-emptive rights under the Articles of Association and there is no restriction against such rights which would oblige the Company to offer new Shares on a pro-rata basis to existing Shareholders.

### PURCHASE, REDEMPTION OR SALE OF LISTED SECURITIES OF THE COMPANY

Neither the Company nor any of its subsidiaries purchased, redeemed or sold any of the Company's listed securities during the year ended 31 December 2017.

### MAJOR CUSTOMERS AND SUPPLIERS

During the year ended 31 December 2017, sales to the Group's five largest customers accounted for 91.4% of the Group's total sales, and sales to its largest customer, being the Retained Group, accounted for 52.2% of the Group's total sales. The second largest customer was Yunnan Copper Group.

During the year ended 31 December 2017, purchases from the Group's five largest suppliers in aggregate accounted for approximately 57.5% of the total purchases, and purchases from the largest supplier accounted for approximately 22.4% of total purchases. The second largest supplier was the Retained Group.

Save as disclosed above, none of the Directors, their associates or any shareholders of the Company (which, to the best knowledge of the Directors, own more than 5% of the Company's issued share capital) had any interest in the Group's five largest customers and suppliers during the year ended 31 December 2017.

# REPORT OF THE DIRECTORS (CONTINUED)

## SIGNIFICANT CONTRACT

Save as disclosed in “Connected Transactions”, no other significant contract was entered into between the Company or any of its subsidiaries, and a controlling shareholder or any of its subsidiaries during the year ended 31 December 2017.

## MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year ended 31 December 2017.

## DIRECTORS

The Directors during the Year and up to the date of this report were as follows:

### Executive Directors

Mr. Xinghu Tao  
Mr. Lin Zhang (appointed on 19 May 2017)  
Mr. Chunlai Wang  
Mr. Wei Fan  
Mr. Kaishou Xie  
Mr. Xingeng Luo (resigned on 19 May 2017)

### Non-Executive Director

Mr. Diyong Yan

### Independent Non-Executive Directors

Mr. Chuanyao Sun  
Mr. Jingwei Liu  
Mr. Huanfei Guan

In accordance with article 102 of the Articles of Association, at each annual general meeting, one-third of the directors or, if their number is not three (3) or a multiple of three (3), the number which is nearest to and is at least one-third, shall retire from office by rotation at least once every three (3) years. A retiring director shall be eligible for re-election. Pursuant to article 103 of the Articles of Association, the directors to retire by rotation shall be those who have been longest in office since their last appointment or reappointment, but as between persons who became or were last reappointed directors on the same day, those to retire shall (unless they otherwise agree among themselves) be determined by lot. In compliance with the provisions of the Articles, Mr. Chunlai Wang, Mr. Wei Fan and Mr. Diyong Yan shall retire at the forthcoming annual general meeting and, being eligible, will offer themselves for re-election. Pursuant to the article 107 of the Articles of Association, a

## REPORT OF THE DIRECTORS (CONTINUED)

director appointed by the Board to fill a vacancy or as an additional director shall retire at the next following general meeting and shall then be eligible for re-election. Mr. Lin Zhang, being appointed by the Board during the Year, shall retire at the forthcoming annual general meeting and, being eligible, will offer himself for re-election.

The Company has received annual confirmation of independence from the three independent non-executive Directors in accordance with Rule 3.13 of the Listing Rules and considers them to be independent.

The names of all directors who have served on the boards of the subsidiaries of the Company during the year ended 31 December 2017 or during the period from 1 January 2018 to 29 March 2018 are set out below and those marked with an asterisk\* are directors as at 29 March 2018:

Xinghu Tao*	Lin Zhang*	Xingeng Luo
Chunlai Wang*	Anne Flood*	Jinjun Zhang*
Jinghe Zhu*	Guoping Liu*	Donghong Zhang*
Liang Zhou*	Mufingwe Ng'ambi*	Larry Phiri*
Jianqiang Wu*	Baosen Zan	Rongting Li*
Wei Fan*	Gang Qu*	Xi Yi*
Kaishou Xie*	Weimin Xu*	Xiliang Xu*
Jian Guo*	Jingjun Wang*	Yuanyuan Liu*
Haiyang Li	Fawu Shi*	Chunguang Pang*
Tamara S Ngoma*	Cosmas Mwananshiku*	Matilda P Lyama*
Tembwe G Katongo	Muyangwa Kakenenwa	Nanshan Shen*
Jianming Zhu*	Yaolin Li*	Qujian Lin*
Siu Kam Peter Ng*	Siu Hong Ng*	Peiwen Zhang*
Moukachar Abu Chebib*	Zhimin Chen*	Guobin Hu*
Wenyan Xu*	Chengyi Fang*	Ran Guo
Yan Wang *	Aibin Hu*	Xinghua Liu*

## DIRECTORS AND SENIOR MANAGEMENT

The biographies of the Directors and senior management are set out on pages 40 to 46 in this annual report.

## DIRECTORS' INTERESTS IN TRANSACTION, ARRANGEMENT AND CONTRACT OF SIGNIFICANCE

No Directors and their connected entities had an interest, either directly or indirectly, in any transactions, arrangements or contract of significance to the business of the Group to which the Company, or any of its holding companies, subsidiaries or fellow subsidiaries was a party during the year ended 31 December 2017.

None of the Directors proposed for re-election at the forthcoming annual general meeting has a service contract with the Company which is not terminable by the Company within one year without payment of compensation, other than statutory compensation.

## REPORT OF THE DIRECTORS (CONTINUED)

### **DIRECTOR' S PERMITTED INDEMNITY PROVISION**

Pursuant to the Company's Articles of Association, every Director or other office of the Company shall be entitled to be indemnified out of the assets of the Company against all costs, charges, expenses, losses and liabilities which he may sustain or incur in or about the execution of the duties of his office or otherwise in relation thereto. The Company has arranged appropriate directors' and officers' liability insurance coverage for the Directors and officers of the Group during the year ended 31 December 2017, and such coverage remained in full force as of the date of this report.

### **DIRECTOR'S INTERESTS IN COMPETING BUSINESS**

None of the Directors of the Company had engaged in any business or had any interest in business which competes or may constitutes competition directly or indirectly (within the meaning of the Listing Rules) with the business of the Group during the year ended 31 December 2017.

### **DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES**

The Company or any of its subsidiaries did not have any arrangement in place at any time during the period whereby the Directors or their respective spouse or children under 18 years of age can obtain benefit by acquiring shares of the Company or other body corporate.

### **DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES**

As at 31 December 2017, none of the Directors or chief executive had any interests or short positions in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV the SFO) which would fall to be disclosed to the Company or the Hong Kong Stock Exchange pursuant to Division 7 and 8 at the Part XV of the SFO; or interest or short positions required to be recorded in the register kept by the Company pursuant to Section 352 of the SFO; or interests or short positions which fall to be disclosed to the Company and the Hong Kong Stock Exchange pursuant to the Model Code.

### **EMOLUMENTS OF THE DIRECTORS, SENIOR MANAGEMENT AND THE FIVE HIGHEST PAID INDIVIDUALS**

Please refer to note 13 to the consolidated financial statements on pages 179 to 182 for details of the emoluments of the Directors, senior management and the five highest paid individuals of the Company.

## REPORT OF THE DIRECTORS (CONTINUED)

### SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES

As of 31 December 2017, so far as it is known to the Director and chief executive of the Company, interests or short positions which would fall to be disclosed to the Company and the Hong Kong Stock Exchange pursuant to the provisions of Division 2 and 3 under the Part XV of the SFO is as follows:

Substantial shareholder	Capacity/Nature of interest	Long/short position	Number of shares	Approximate percentage of shareholdings
CNMD <i>(Note)</i>	Registered owner	Long position	2,600,000,000	74.52%
CNMC	Interest in a controlled corporation	Long position	2,600,000,000	74.52%

*Note:* CNMD is a wholly-owned subsidiary of CNMC and therefore, by virtue of the SFO, CNMC is deemed or taken to be interested in all the shares which are owned by CNMD.

As at 31 December 2017, each of the following entities were directly or indirectly interested in 10% or more of the nominal value of any class of share capital carrying rights to vote in all circumstances at the general meeting of any other members of the Group:

Member of the Group	Entity with 10% or more interest (other than member of the Group)	Percentage of that entity's interest
NFCA	ZCCM-IH	15%
Luanshya	ZCCM-IH	20%
CCS	Yunnan Copper Group	40%
SML	Hong Kong Zhongfei	30%
Huachin Leach	Huachin SARL	32.5%
CNMC Huachin Mabende	Huachin SARL	35%
CNMHK	Hong Kong Zhongfei	30%
Kambove Mining	La Generale Des Carrieres Et Des Mines SA	45%
Lualaba Copper Smelter	YH Metal	40%

Save as disclosed above, as at 31 December 2017, no person had registered an interest or short position in the shares or underlying shares of the Company that was required to be recorded pursuant to Section 336 of the SFO.

## REPORT OF THE DIRECTORS (CONTINUED)

### RETIREMENT BENEFIT SCHEMES

Details of the retirement benefit schemes of the Group are set out in note 37 to the consolidated financial statements.

### SHARE OPTION SCHEME

The Group has not adopted any share option scheme.

### EQUITY-LINKED AGREEMENT

Save as disclosed in this annual report, there was no equity-linked agreement entered into by the Company during the year ended 31 December 2017.

### CONNECTED TRANSACTIONS

#### **Non-exempted Connected Transaction**

On 18 April 2017, CNMHKI, a wholly-owned subsidiary of the Company, and YH Metal entered into a JV Agreement (the “JV Agreement”), pursuant to which a joint venture (the “Joint Venture”) shall be established in the DRC for the purpose of construction of a smelter for fire-refining of blister copper with the annual capacity of 400,000 tonnes of copper concentrate. On 21 June 2017, the Joint Venture, namely Lualaba Copper Smelter, was incorporated, CNMHKI and YH Metal hold 60% and 40% of equity interest in the registered capital of USD20,000 in Lualaba Copper Smelter, respectively, and based on the consideration of voting rights, Lualaba Copper Smelter became a subsidiary of the Company. In accordance with the JV Agreement, the total investment in the project amounted to approximately USD420 million, to which both parties’ contribution with their own funds and shareholder’s loans (or provision of guarantee) represented 30% (approximately USD126 million) and 70% (approximately USD294 million), respectively. Their own funds and shareholder’s loans (or provision of guarantee) were contributed by both parties in proportion to their respective shareholdings in Lualaba Copper Smelter. Details of the JV Agreement were disclosed in the announcement and circular of the Company dated 18 April 2017 and 26 May 2017, respectively.

YH Metal is a wholly-owned subsidiary of Yunnan Copper Group, and Yunnan Copper Group is a substantial shareholder of CCS, a subsidiary of the Company, holding 40% of its issued share capital. Therefore, YH Metal is a connected person of the Company at subsidiary level.

#### **Non-exempted Continuing Connected Transactions**

During the Year, the Group carried out the following transactions which constituted continuing connected transactions under Chapter 14A of the Listing Rules and were subject to annual review.

# REPORT OF THE DIRECTORS (CONTINUED)

## 1. CNMC Copper Supply Framework Agreement

On 18 November 2014, the Company entered into the CNMC Copper Supply Framework Agreement (“2014 CNMC Copper Supply Framework Agreement”) with CNMC pursuant to which the Company agreed to sell, or procure its subsidiaries to sell, copper products including blister copper and copper cathode to the Retained Group, subject to the approval of the Independent Shareholders. The Independent Shareholders approved the 2014 CNMC Copper Supply Framework Agreement and the proposed annual caps at the extraordinary general meeting of the Company (“EGM”) held on 29 December 2014. The duration of 2014 CNMC Copper Supply Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the 2014 CNMC Copper Supply Framework Agreement were disclosed in the announcement and circular of the Company dated 18 November 2014 and 8 December 2014 respectively.

During the year ended 31 December 2017, the revenue and gains from the sale of copper products (including income and gain on change in fair value) to the Retained Group amounted to US\$1,014,808,000, which is below the annual cap amount of US\$1,957,429,000.

The 2014 CNMC Copper Supply Framework Agreement expired on 31 December 2017. As the Company intends to continue to enter into transactions of a similar nature from time to time after 31 December 2017, on 18 April 2017, the Company entered into the CNMC Copper Supply Framework Agreement (“2017 CNMC Copper Supply Framework Agreement”) with CNMC, the nature of which is similar to that of the transactions under the 2014 CNMC Copper Supply Framework Agreement for a term of three years from 1 January 2018 to 31 December 2020, subject to the approval of the Independent Shareholders. The Independent Shareholders approved the 2017 CNMC Copper Supply Framework Agreement and the proposed annual caps at the EGM held on 31 May 2017. Details of the 2017 CNMC Copper Supply Framework Agreement were disclosed in the announcement and circular of the Company dated 18 April 2017 and 15 May 2017 respectively.

CNMC held 100% and 74.52% of the Company’s issued share capital before and after the Listing, respectively. The Retained Group consists of CNMC and its subsidiaries, excluding the Group. Both CNMC and the Retained Group constitute connected persons of the Company under the Listing Rules.

## 2. Yunnan Copper Supply Framework Agreement

On 18 November 2014, the Company entered into the Yunnan Copper Supply Framework Agreement (“2014 Yunnan Copper Supply Framework Agreement”) with Yunnan Copper Group pursuant to which the Company agreed to sell, or procure its subsidiaries to sell, copper products including blister copper and copper cathode to the Yunnan Copper Group and its subsidiaries. The duration of 2014 Yunnan Copper Supply Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the 2014 Yunnan Copper Supply Framework Agreement were disclosed in the announcement of the Company dated 18 November 2014.

## REPORT OF THE DIRECTORS (CONTINUED)

During the year ended 31 December 2017, the revenue and gains from the sale of copper products (including income and gain on change in fair value) to Yunnan Copper Group and its subsidiaries amounted to US\$343,035,000, which is below the annual cap amount of US\$748,000,000.

The 2014 Yunnan Copper Supply Framework Agreement expired on 31 December 2017. As the Company intends to continue to enter into transactions of a similar nature from time to time after 31 December 2017, on 18 April 2017, the Company entered into the Yunnan Copper Supply Framework Agreement (“2017 Yunnan Copper Supply Framework Agreement”) with Yunnan Copper Group, the nature of which is similar to that of the transactions under the 2014 Yunnan Copper Supply Framework Agreement for a term of three years from 1 January 2018 to 31 December 2020. Details of the 2017 Yunnan Copper Supply Framework Agreement were disclosed in the announcement of the Company dated 18 April 2017.

Yunnan Copper Group is a substantial shareholder of CCS holding 40% of the issued share capital of CCS. Yunnan Copper Group and its subsidiaries constitute connected persons of the Company under the Listing Rules.

### **3. Huachin Ore Supply Framework Agreement**

On 18 November 2014, the Company entered into the Huachin Ore Supply Framework Agreement (“2014 Huachin Ore Supply Framework Agreement”) with Mabende Mining pursuant to which the Company agreed to buy, or procure its subsidiaries to buy, copper ores mined by Mabende Mining. The duration of 2014 Huachin Ore Supply Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the 2014 Huachin Ore Supply Framework Agreement were disclosed in the announcement of the Company dated 18 November 2014.

During the year ended 31 December 2017, the Group purchased ores amounting to US\$23,090,000 from Mabende Mining, which is below the annual cap amount of US\$44,718,000.

The 2014 Huachin Ore Supply Framework Agreement expired on 31 December 2017. As the Company intends to continue to enter into transactions of a similar nature from time to time after 31 December 2017, on 18 April 2017, the Company entered into the Huachin Ore Supply Framework Agreement (“2017 Huachin Ore Supply Framework Agreement”) with Mabende Mining, the nature of which is similar to that of the transactions under the 2014 Huachin Ore Supply Framework Agreement for a term of three years from 1 January 2018 to 31 December 2020. Details of the 2017 Huachin Ore Supply Framework Agreement were disclosed in the announcement of the Company dated 18 April 2017.

Huachin Leach and CNMC Huachin Mabende are 32.5% and 35%, respectively, indirectly owned by Mr. Ng Siu Kam, who also owns 70% interest in Mabende Mining. Mabende Mining constitutes a connected person of the Company under the Listing Rules.



## REPORT OF THE DIRECTORS (CONTINUED)

### 4. Mutual Supply Framework Agreement

On 18 November 2014, the Company entered into the Mutual Supply Framework Agreement (“2014 Mutual Supply Framework Agreement”) with CNMC (as supplemented by a supplemental agreement dated 4 December 2014) pursuant to which both parties agreed to provide, or procure their respective subsidiaries to provide certain raw materials, products and services to each other, and CNMC agreed to provide, or procure its subsidiaries to provide transportation and logistics services to the Group, subject to the approval of the Independent Shareholders. The Independent Shareholders approved the 2014 Mutual Supply Framework Agreement and the proposed annual caps at the EGM held on 29 December 2014. The duration of 2014 Mutual Supply Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the 2014 Mutual Supply Framework Agreement were disclosed in the announcement and circular of the Company dated 18 November 2014 and 8 December 2014 respectively.

During the year ended 31 December 2017, the amount paid by the Group for the provision of raw materials, products and services provided by the Retained Group amounted to US\$259,783,000, and the revenue from the provision of raw materials, products and services to the Retained Group amounted to US\$3,372,000, both of which are below the annual caps of US\$294,454,000 and US\$8,017,000, respectively.

The 2014 Mutual Supply Framework Agreement expired on 31 December 2017. As the Company intends to continue to enter into transactions of a similar nature from time to time after 31 December 2017, on 18 April 2017, the Company entered into the Mutual Supply Framework Agreement (“2017 Mutual Supply Framework Agreement”) with CNMC, the nature of which is similar to that of the transactions under the 2014 Mutual Supply Framework Agreement for a term of three years from 1 January 2018 to 31 December 2020, subject to the approval of the Independent Shareholders. The Independent Shareholders approved the 2017 Mutual Supply Framework Agreement and the proposed annual caps at the EGM held on 31 May 2017. Details of the 2017 Mutual Supply Framework Agreement were disclosed in the announcement and circular of the Company dated 18 April 2017 and 15 May 2017 respectively.

### 5. Properties Leasing Framework Agreement

On 18 November 2014, the Company entered into the Properties Leasing Framework Agreement (“2014 Properties Leasing Framework Agreement”) with CNMC pursuant to which CNMC has agreed to lease the Leased Properties to the Group for general business and ancillary purposes. The duration of 2014 Properties Leasing Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the 2014 Properties Leasing Framework Agreement were disclosed in the announcement of the Company dated 18 November 2014.

During the year ended 31 December 2017, the rentals paid to the Retained Group amounted to US\$6,122,000, which is below the annual cap amount of US\$7,774,000.

## REPORT OF THE DIRECTORS (CONTINUED)

The 2014 Properties Leasing Framework Agreement expired on 31 December 2017. As the Company intends to continue to enter into transactions of a similar nature from time to time after 31 December 2017, on 18 April 2017, the Company entered into the Properties Leasing Framework Agreement (“2017 Properties Leasing Framework Agreement”) with CNMC, the nature of which is similar to that of the transactions under the 2014 Properties Leasing Framework Agreement for a term of three years from 1 January 2018 to 31 December 2020. Details of the 2017 Properties Leasing Framework Agreement were disclosed in the announcement of the Company dated 18 April 2017.

### **6. CNMC Guarantee Fees Framework Agreement**

On 18 November 2014, the Company entered into the CNMC Guarantee Fees Framework Agreement with CNMC pursuant to which subsidiaries of the Company agreed to reimburse CNMC for any guarantee fees that it will pay to third party financial institutions for the unconditional irrevocable letters of guarantee to be issued. The duration of CNMC Guarantee Fees Framework Agreement lasts from 1 January 2015 to 31 December 2017. Details of the CNMC Guarantee Fees Framework Agreement were disclosed in the announcement of the Company dated 18 November 2014.

During the year ended 31 December 2017, the aggregate amount of guarantee fees paid by the Group to CNMC amounted to US\$1,643,000, which is below the annual cap amount of US\$5,100,000.

### **7. NFC Copper Purchase Framework Agreement**

On 19 April 2017, CCS entered into the NFC Copper Purchase Framework Agreement with NFC Metal Pte. Ltd. (“NFC Metal”) pursuant to which CCS agreed to buy copper concentrate from NFC Metal. The duration of NFC Copper Purchase Framework Agreement lasts from 1 June 2017 to 31 December 2019. Details of the NFC Copper Purchase Framework Agreement were disclosed in the announcement of the Company dated 19 April 2017.

During the year ended 31 December 2017, CCS purchased copper concentrate amounting to US\$26,281,000 from NFC Metal, which is below the annual cap amount of US\$100,000,000.

NFC Metal is wholly-owned by China Nonferrous Metal Industry’s Foreign Engineering and Construction Co., Ltd (“NFC”), and CNMC in turn holds 33.75% of the issued share capital of NFC. NFC Metal constitutes a connected person of the Company under the Listing Rules.

Details of related party transactions of the Company for the year ended 31 December 2017 are set out in note 36 to the consolidated financial statements. Save for the related party transactions as set out under item (3) in respect of remuneration of key management personnel, represents emoluments of the Directors, all the related party transactions set out in note 36 constitute connected transactions under Chapter 14A of the Listing Rules. The Company confirms that all such related party transactions complied with the applicable requirements under Chapter 14A of the Listing Rules.

## REPORT OF THE DIRECTORS (CONTINUED)

The independent non-executive Directors have reviewed the nature and process of the business transactions, discussed the pricing policies of those transactions, and have confirmed that these continuing connected transactions of the Group have been entered into: (i) in the ordinary and usual course of business of the Group; (ii) on normal commercial terms; and (iii) in accordance with the relevant agreements governing them on terms that are fair and reasonable and in the interests of the Shareholders of the Company as a whole.

The Company has designated the Compliance Committee to continuously monitor the continuing connected transactions with the abovementioned connected persons. The Compliance Committee continuously traces and regularly monitors the progress of the continuing connected transactions and reports to management of the Company. The Compliance Committee reviews the continuing connected transactions with the finance department to ensure that annual caps are not exceeded. The heads of different departments of the Company will also be informed on a periodic basis in relation to the terms and pricing policies of the continuing connected transactions. The Compliance Committee will communicate with the Audit Committee, management and the Board of Directors, monthly or as needed, to report the progress of the continuing connected transactions, and request for approval of new changes of existing transaction terms. The Audit Committee and the Compliance Committee have also assigned the independent internal audit team the task to ensure that the Company's internal control measures in respect of the continuing connected transactions remain effective and complete. With these measures, the independent non-executive Directors could therefore assess and give the confirmations in the preceding paragraph.

The Company's auditor has been engaged to report on the continuing connected transactions of the Group in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditor has issued its letter containing its findings and conclusions, in respect of the above-mentioned continuing connected transactions disclosed by the Company in this annual report in accordance with Rule 14A.56 of the Listing Rules.

In respect of the continuing connected transactions disclosed (the "Disclosed Continuing Connected Transactions"), the Company's auditor confirmed that:

- a. nothing has come to their attention that causes them to believe that the Disclosed Continuing Connected Transactions have not been approved by the Company's board of directors;
- b. for transactions involving the provision of goods or services by the Group, nothing has come to their attention that causes them to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Group;
- c. nothing has come to their attention that causes them to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions;

## REPORT OF THE DIRECTORS (CONTINUED)

- d. with respect to the aggregate amount of each of the continuing connected transactions set out in the letter, nothing has come to their attention that causes them to believe that the Disclosed Continuing Connected Transactions have exceeded the annual cap disclosed in the announcement of the Company dated 18 November 2014 and 19 April 2017 made by the Company in respect of each of the Disclosed Continuing Connected Transactions.

A copy of the auditor's letter has been provided by the Company to the Hong Kong Stock Exchange.

### NON-COMPETITION UNDERTAKING

As disclosed in the Prospectus, the independent non-executive Directors will review, on an annual basis, the compliance by CNMC and its associates with the Non-Competition Undertaking under the Deed of Non-Competition Undertaking, including whether to pursue any business opportunities which may be referred or offered to the Company by the Retained Group. The Company has received an annual confirmation from CNMC in respect of its compliance with the Non-Competition Undertaking. The independent non-executive Directors of the Company have reviewed the status of compliance of the Non-Competition Undertaking for the year ended 31 December 2017 and confirmed that all the undertakings under the Deed of Non-Competition Undertaking have been complied with by CNMC.

### COMPLIANCE WITH PROVISIONS OF THE CORPORATE GOVERNANCE CODE

Save as disclosed in the 2017 interim report of the Company, Mr. Xinghu Tao serves as the Chairman and President of the Company with effect from 20 April 2015 which is at variance with code provision A.2.1 of the Corporate Governance Code, none of the Directors is aware of any information which would reasonably indicate that the Company has not, for any part of the year ended 31 December 2017, complied with the code provisions as set out in the Corporate Governance Code and Corporate Governance Report ("CG Code") contained in Appendix 14 of the Listing Rules.

The Board had been searching for a suitable candidate to act as the President of the Company. Mr. Xinghu Tao ceased to be the President of the Company and Mr. Lin Zhang was appointed as executive Director and President of the Company during the Year, since then, the roles of Chairman and President of the Company are not performed by the same individual. The Company had complied with code provision A.2.1 of the CG Code as at 31 December 2017.

## REPORT OF THE DIRECTORS (CONTINUED)

### SUFFICIENCY OF PUBLIC FLOATING

Based on the information that is publicly available to the Company and as far as the Directors are aware, the Company has maintained at least 25% of public float as at the date of this annual report.

### AUDIT COMMITTEE

The Company has an Audit Committee which was established with written terms of reference in compliance with Rules 3.22 of the Listing Rules and paragraph C3 of the Corporate Governance Code and Corporate Governance Report contained in Appendix 14 of the Listing Rules. The primary duties of the Audit Committee are to supervise the financial reporting process and internal control and risk management systems of the Group. The Audit Committee consists of three members, being Mr. Diyong Yan (non-executive Director), Mr. Jingwei Liu (independent non-executive Director) and Mr. Huanfei Guan (independent non-executive Director). The Group's financial statements for the year ended 31 December 2017 have been reviewed by the Audit Committee, which was of the opinion that such statements complied with the applicable accounting standards, the Listing Rules and legal requirements, and that adequate disclosures had been made.

### AUDITOR

A resolution for the re-appointment of Deloitte as auditor of the Company is to be submitted at the forthcoming annual general meeting.

Approved on behalf of the Board of Directors

**Xinghu Tao**

*Chairman*

29 March 2018

# INDEPENDENT AUDITOR'S REPORT



## **TO THE MEMBERS OF CHINA NONFERROUS MINING CORPORATION LIMITED**

*(incorporated in Hong Kong with limited liability)*

### **OPINION**

We have audited the consolidated financial statements of China Nonferrous Mining Corporation Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 130 to 228, which comprise the consolidated statement of financial position as at 31 December 2017, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2017, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

### **BASIS FOR OPINION**

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSA") issued by the HKICPA. 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 HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. 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.

# INDEPENDENT AUDITOR'S REPORT (CONTINUED)

## KEY AUDIT MATTERS (Continued)

Key audit matter	How our audit addressed the key audit matter
<p><u>Contingent liabilities arising from Value Added Tax ("VAT") assessment</u></p> <p>We identified contingent liabilities arising from a VAT assessment about a subsidiary of the Company in Zambia as a key audit matter because the tax matter requires the management's judgement in respect of the possible outcome of the final decision of the relevant tax authority.</p> <p>Details of the contingent liabilities arising from the VAT assessment and related estimation uncertainty are set out in notes 38 and 4 to the consolidated financial statements, respectively.</p>	<p>Our audit procedures in relation to contingent liabilities arising from the VAT assessment included:</p> <ul style="list-style-type: none"><li>• Evaluating, with the assistance of our own local tax specialist, the management's basis in determining the VAT exposure for the contingencies; and</li><li>• Reading the relevant correspondences between the subsidiary and the tax authority and examining other available evidences, on a sample basis.</li></ul>

## OTHER INFORMATION

The directors of the Company are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## INDEPENDENT AUDITOR'S REPORT (CONTINUED)

### RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine 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, the directors are 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 the directors either intend to liquidate the Group or to cease operations, or have 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 solely to you, as a body, in accordance with section 405 of the Hong Kong Companies Ordinance, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAAs 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.



## INDEPENDENT AUDITOR'S REPORT (CONTINUED)

### AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As part of an audit in accordance with HKSA's, 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 the directors.
- Conclude on the appropriateness of the directors' 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 group audit. We remain solely responsible for our audit opinion.

## INDEPENDENT AUDITOR'S REPORT (CONTINUED)

### AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 the independent auditor's report is Cheng Pak Chuen, Patrick.

**Deloitte Touche Tohmatsu**  
*Certified Public Accountants*

Hong Kong  
29 March 2018

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2017

	Notes	2017 US\$'000	2016 US\$'000
<b>Revenue</b>		<b>1,838,731</b>	1,313,291
Cost of sales	5, 6	<b>(1,406,783)</b>	(1,113,378)
Gross profit		<b>431,948</b>	199,913
Other income	7	<b>9,599</b>	7,272
Distribution and selling expenses		<b>(46,282)</b>	(28,273)
Administrative expenses		<b>(53,443)</b>	(46,349)
Finance costs	8	<b>(23,117)</b>	(22,411)
Other expenses	9	<b>(17,599)</b>	(44,115)
Other gains and losses	10	<b>18,121</b>	3,060
<b>Profit before tax</b>		<b>319,227</b>	69,097
Income tax expense	11	<b>(85,368)</b>	(23,650)
Profit and total comprehensive income for the year	6, 12	<b>233,859</b>	45,447
<b>Profit and total comprehensive income attributable to:</b>			
Owners of the Company		<b>142,428</b>	11,832
Non-controlling interests		<b>91,431</b>	33,615
		<b>233,859</b>	45,447
<b>Earnings per share</b>			
– Basic and diluted ( <i>US cents per share</i> )	15	<b>4.08</b>	0.34
– Basic and diluted ( <i>equivalent to approximately HK\$ per share</i> )	15	<b>0.32</b>	0.03

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

AT 31 DECEMBER 2017

	<i>Notes</i>	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	16	<b>1,021,166</b>	905,087
Mining right	17	–	10,366
Interest in an associate	18	<b>2,143</b>	2,143
Finance lease receivables		<b>319</b>	1,089
Other assets	21	<b>20,082</b>	13,826
Restricted bank balances	22	<b>6,027</b>	6,027
Deferred tax assets	30	<b>52,456</b>	59,702
		<b>1,102,193</b>	998,240
<b>CURRENT ASSETS</b>			
Inventories	19	<b>383,580</b>	316,824
Finance lease receivables		<b>950</b>	2,447
Trade receivables	20	<b>234,924</b>	224,225
Prepayments and other receivables	21	<b>180,299</b>	163,578
Restricted bank balances	22	<b>1,267</b>	1,100
Bank deposits	22	<b>45,000</b>	38,000
Bank balances and cash	22	<b>854,984</b>	685,327
		<b>1,701,004</b>	1,431,501
<b>CURRENT LIABILITIES</b>			
Trade payables	23	<b>265,665</b>	275,985
Other payables and accrued expenses	24	<b>62,206</b>	33,885
Income tax payable		<b>72,930</b>	27,325
Bank and other borrowings			
– due within one year	25	<b>455,225</b>	58,000
Derivative, at fair value	26	<b>4,419</b>	8,233
		<b>860,445</b>	403,428
<b>NET CURRENT ASSETS</b>		<b>840,559</b>	1,028,073
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>1,942,752</b>	2,026,313

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

AT 31 DECEMBER 2017

	<i>Notes</i>	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
<b>CAPITAL AND RESERVES</b>			
Share capital	27	<b>613,233</b>	613,233
Retained profits		<b>173,842</b>	31,414
Equity attributable to owners of the Company		<b>787,075</b>	644,647
Non-controlling interests		<b>253,009</b>	198,999
<b>TOTAL EQUITY</b>		<b>1,040,084</b>	843,646
<b>NON-CURRENT LIABILITIES</b>			
Bank and other borrowings			
– due after one year	25	<b>813,512</b>	1,100,487
Deferred income	28	<b>16,199</b>	15,818
Provision for restoration, rehabilitation and environmental costs	29	<b>18,960</b>	19,863
Deferred tax liabilities	30	<b>53,997</b>	46,499
		<b>902,668</b>	1,182,667
		<b>1,942,752</b>	2,026,313

The consolidated financial statements on pages 130 to 228 were approved and authorised for issue by the board of directors on 29 March 2018 and are signed on its behalf by:

**Xinghu Tao**  
*DIRECTOR*

**Lin Zhang**  
*DIRECTOR*

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2017

	Equity attributable to owners of the Company			Non-	Total
	Share capital	Retained profits	Sub-total	controlling interests	equity
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Balance at 1 January 2016	613,233	19,582	632,815	154,656	787,471
Profit and total comprehensive income for the year	–	11,832	11,832	33,615	45,447
Dividend declared by a subsidiary	–	–	–	(3,672)	(3,672)
Capital contribution by a non-controlling shareholder of a subsidiary	–	–	–	14,400	14,400
Balance at 31 December 2016	613,233	31,414	644,647	198,999	843,646
Profit and total comprehensive income for the year	–	<b>142,428</b>	<b>142,428</b>	<b>91,431</b>	<b>233,859</b>
Dividend declared by subsidiaries	–	–	–	<b>(50,046)</b>	<b>(50,046)</b>
Capital contribution by non-controlling shareholders of subsidiaries	–	–	–	<b>12,625</b>	<b>12,625</b>
<b>Balance at 31 December 2017</b>	<b>613,233</b>	<b>173,842</b>	<b>787,075</b>	<b>253,009</b>	<b>1,040,084</b>

# CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 DECEMBER 2017

	2017 US\$'000	2016 US\$'000
<b>OPERATING ACTIVITIES</b>		
Profit before tax	<b>319,227</b>	69,097
Adjustments for:		
Loss on impairment of trade receivables	–	2,325
Loss on impairment of Value Added Tax (“VAT”) receivables	<b>7,860</b>	–
Depreciation of property, plant and equipment	<b>106,154</b>	106,659
Amortisation of mining right	<b>10,366</b>	634
Release of premium for electricity supply	<b>440</b>	440
Deferred income recognised	<b>(880)</b>	(2,729)
Interest income	<b>(4,748)</b>	(1,484)
Net income earned under finance leases to fellow subsidiaries	<b>(189)</b>	(1,229)
Gain arising on fair value change of derivatives	<b>(33,035)</b>	(5,097)
(Gain) loss on disposal of property, plant and equipment, net	<b>(186)</b>	3,152
Foreign exchange (gain) loss	<b>(925)</b>	292
Finance costs	<b>23,117</b>	22,411
Operating cash flows before movements in working capital	<b>427,201</b>	194,471
Increase in inventories	<b>(66,756)</b>	(10,444)
Decrease (increase) in trade and other receivables, prepayments and other assets	<b>35,337</b>	(104,332)
(Decrease) increase in trade and other payables and accrued expenses	<b>(34,981)</b>	53,801
Cash generated from operations	<b>360,801</b>	133,496
Income tax paid	<b>(25,019)</b>	(11,550)
<b>NET CASH FROM OPERATING ACTIVITIES</b>	<b>335,782</b>	121,946

## CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
<b>INVESTING ACTIVITIES</b>		
Purchase of property, plant and equipment	<b>(205,868)</b>	(102,546)
Proceeds from disposal of property, plant and equipment	<b>277</b>	210
Placement of restricted bank balances	<b>(417)</b>	(1,505)
Proceeds from release of restricted bank balances	<b>250</b>	7,006
Repayment of finance lease receivables from fellow subsidiaries	<b>2,267</b>	6,508
Finance income earned under finance leases to fellow subsidiaries received	<b>189</b>	1,229
Placement of bank deposits	<b>(45,000)</b>	(38,000)
Proceeds from release of bank deposits	<b>38,000</b>	69,357
Interest received	<b>4,748</b>	1,484
Receipts of government grants	<b>1,261</b>	–
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(204,293)</b>	(56,257)
<b>FINANCING ACTIVITIES</b>		
Capital contribution by non-controlling shareholders of subsidiaries	<b>12,625</b>	14,400
New bank and other borrowings raised	<b>183,000</b>	496,520
Repayment of bank and other borrowings	<b>(72,750)</b>	(392,505)
Dividends paid to shareholders	<b>–</b>	(7,358)
Dividends paid to non-controlling shareholders of subsidiaries	<b>(49,801)</b>	(15,672)
Interest paid	<b>(35,831)</b>	(35,701)
<b>NET CASH FROM FINANCING ACTIVITIES</b>	<b>37,243</b>	59,684
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>168,732</b>	125,373
<b>CASH AND CASH EQUIVALENTS AT THE BEGINNING OF YEAR</b>	<b>685,327</b>	560,246
Effect of foreign exchange rate changes on the balance of cash held in foreign currencies	<b>925</b>	(292)
<b>CASH AND CASH EQUIVALENTS AT THE END OF YEAR</b>		
Represented by:		
Bank balances and cash	<b>854,984</b>	685,327



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2017

## 1. GENERAL INFORMATION

China Nonferrous Mining Corporation Limited (the “Company”) was incorporated in Hong Kong on 18 July 2011 and its shares are listed on The Stock Exchange of Hong Kong Limited. In the opinion of the directors of the Company (the “Directors”), the Company’s immediate holding company is China Nonferrous Mining Development Limited, a private company incorporated in the British Virgin Islands and the Company’s ultimate holding company is China Nonferrous Metal Mining (Group) Co., Ltd (“CNMC”), an enterprise established in the People’s Republic of China (the “PRC”) and wholly-owned by State-owned Assets Supervision and Administration Commission of the State Council. The registered office of the Company is located at Room 1201, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong, and its principal place of business is located at 32 Enos Chomba Road, Kitwe, The Republic of Zambia (“Zambia”).

The principal activity of the Company is investment holding. The Company’s subsidiaries are principally engaged in exploration, mining, ore processing, leaching, smelting and sale of copper cathodes, blister copper and sulfuric acid. The activities of the subsidiaries of the Company are set out in the note 39.

The consolidated financial statements of the Company and its subsidiaries (collectively referred to as the “Group”) are presented in United States dollar (“US\$”), which is also the functional currency of the Company.

## 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”)

### **Amendments to HKFRSs that are mandatorily effective for the current year**

The Group has applied the following amendments to HKFRSs issued by the Hong Kong Institute of Certified Public Accountants (“HKICPA”) for the first time in the current year:

Amendments to HKAS 7	<i>Disclosure Initiative</i>
Amendments to HKAS 12	<i>Recognition of Deferred Tax Assets for Unrealised Losses</i>
Amendments to HKFRS 12	<i>As part of Annual Improvements to HKFRSs 2014–2016 Cycle</i>

Except as described below, the application of the amendments to HKFRSs has had no material impact on the Group’s financial performance and positions for the current and prior years and on the disclosures set out in these consolidated financial statements.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

#### **Amendments to HKFRSs that are mandatorily effective for the current year (Continued)**

##### *Amendment to HKAS 7 Disclosure Initiative*

The Group has applied these amendments for the first time in the current year. The amendments require an entity to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both cash and non-cash changes. In addition, the amendments also require disclosures on changes in financial assets if cash flows from those financial assets were, or future cash flows will be included in cash flows from financing activities.

Specially, the amendments require the following to be disclosed: (i) changes from financing cash flows; (ii) changes in arising from obtaining or losing control of subsidiaries or other businesses; (iii) the effect of changes in foreign exchange rates; (iv) changes in fair value; and (v) other changes.

A reconciliation between the opening and closing balances of these item is provided in note 35. Consistent with the transition provisions of the amendments, the Group has not disclosed comparative information for the prior year. Apart from the additional disclosure in note 35, the application of these amendments has had no impact on the Group’s consolidated financial statements.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

#### New and revised HKFRSs in issue but not yet effective

The Group has not early applied the following new and revised HKFRSs that have been issued but are not yet effective:

HKFRS 9	<i>Financial Instruments<sup>1</sup></i>
HKFRS 15	<i>Revenue from Contracts with Customers and the related Amendments<sup>1</sup></i>
HKFRS 16	<i>Leases<sup>2</sup></i>
HKFRS 17	<i>Insurance Contracts<sup>4</sup></i>
HK(IFRIC)-Int 22	<i>Foreign Currency Transactions and Advance Consideration<sup>1</sup></i>
HK(IFRIC)-Int 23	<i>Uncertainty over Income Tax Treatments<sup>2</sup></i>
Amendments to HKFRS 2	<i>Classification and Measurement of Share-based Payment Transactions<sup>1</sup></i>
Amendments to HKFRS 4	<i>Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts<sup>1</sup></i>
Amendments to HKFRS 9	<i>Prepayment Features with Negative Compensation<sup>2</sup></i>
Amendments to HKFRS 10 and HKAS 28	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture<sup>3</sup></i>
Amendments to HKAS 28	<i>Long-term Interests in Associates and Joint Ventures<sup>2</sup></i>
Amendments to HKAS 28	<i>As part of the Annual Improvements to HKFRSs 2014–2016 Cycle<sup>1</sup></i>
Amendments to HKAS 40	<i>Transfers of Investment Property<sup>1</sup></i>
Amendments to HKFRSs	<i>Annual Improvements to HKFRSs 2015–2017 Cycle<sup>2</sup></i>

<sup>1</sup> Effective for annual periods beginning on or after 1 January 2018

<sup>2</sup> Effective for annual periods beginning on or after 1 January 2019

<sup>3</sup> Effective for annual periods beginning on or after a date to be determined

<sup>4</sup> Effective for annual periods beginning on or after 1 January 2021

Except for the new and amendments to HKFRSs and Interpretations mentioned below, the Directors anticipate that the application of all other new and amendments to HKFRSs and Interpretations will have no material impact on the consolidated financial statements in the foreseeable future.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

### **New and revised HKFRSs in issue but not yet effective (Continued)**

#### *HKFRS 9 Financial Instruments*

HKFRS 9 introduces new requirements for the classification and measurement of financial assets, financial liabilities, general hedge and impairment requirements for financial assets.

Key requirements of HKFRS 9 which are relevant to the Group are:

- All recognised financial assets that are within the scope of HKFRS 9 are required to be subsequently measured at amortised cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are generally measured at fair value through other comprehensive income (“FVTOCI”). All other financial assets are measured at their fair value at subsequent accounting periods. In addition, under HKFRS 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading) in other comprehensive income, with only dividend income generally recognised in profit or loss.
- in relation to the impairment of financial assets, HKFRS 9 requires an expected credit loss model, as opposed to an incurred credit loss model under HKAS 39. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.

Based on the Group’s financial instruments and risk management policies as at 31 December 2017, the Directors anticipate the following potential impact on initial application of HKFRS 9:

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

### **New and revised HKFRSs in issue but not yet effective (Continued)**

#### *HKFRS 9 Financial Instruments (Continued)*

##### *Classification and measurement*

- The trade receivables and payables (including the embedded commodity derivative component), which arise from provisionally priced sales and purchase arrangement, will be measured as fair value through profit or loss (“FVTPL”); and
- All other financial assets and financial liabilities will continue to be measured on the same bases as are currently measured under HKAS 39.

##### *Impairment*

In general, the Directors anticipate that the application of the expected credit loss model of HKFRS 9 will result in earlier provision of credit losses which are not yet incurred in relation to the Group’s financial assets measured at amortised costs and other items that subject to the impairment provisions upon application of HKFRS 9 by the Group.

Based on the assessment by the Directors, if the expected credit loss model were to be applied by the Group, the accumulated amount of impairment losses to be recognised by the Group as at 1 January 2018 would be slightly increased as compared to the accumulated amount recognised under HKAS 39 mainly attributable to expected credit losses provision on trade and other receivables. Such further impairment recognised under expected credit loss model would reduce the opening retained profits and increase the deferred tax assets at 1 January 2018.

### 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

#### **New and revised HKFRSs in issue but not yet effective (Continued)**

##### *HKFRS 15 Revenue from Contracts with Customers*

HKFRS 15 was issued which establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. HKFRS 15 will supersede the current revenue recognition guidance including HKAS 18 *Revenue*, HKAS 11 *Construction Contracts* and the related interpretations when it becomes effective.

The core principle of HKFRS 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Under HKFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e. when 'control' of the goods or services underlying the particular performance obligation is transferred to the customer. Far more prescriptive guidance has been added in HKFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by HKFRS 15.

In 2016, the HKICPA issued Classifications to HKFRS 15 in relation to the identification of performance obligations, principal versus agent considerations, as well as licensing application guidance.

The Directors anticipate that the application of HKFRS 15 in the future may result in more disclosures, however, the Directors do not anticipate that the application of HKFRS 15 will have a material impact on the timing and amounts of revenue recognised in the respective reporting periods.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS (“HKFRSs”) (Continued)

#### **New and revised HKFRSs in issue but not yet effective (Continued)**

##### *HKFRS 16 Leases*

HKFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. HKFRS 16 will supersede HKAS 17 *Leases* and the related interpretations when it becomes effective.

HKFRS 16 distinguishes lease and service contracts on the basis of whether an identified assets is controlled by a customer. Distinctions of operating leases and finance leases are removed for lease accounting, and is replaced by a model where a right-of-use assets and a corresponding liability have to be recognised for all leases by lessees, except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment loss, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst orders. For the classification of cash flows, the Group currently presents operating lease payments as operating cash flows. Upon application of HKFRS 16, lease payments in relation to lease liability will be allocated into a principal and an interest portion which will be presented as financing cash flows by the Group.

In contrast to lease accounting, HKFRS 16 substantially carries forward the lessor accounting requirements in HKAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

Furthermore, extensive disclosures are required by HKFRS 16.

As at 31 December 2017, the Group has non-cancellable operating lease commitments of US\$23,541,000 as disclosed in note 31. A preliminary assessment indicates that these arrangements will meet the definition of a lease. Upon application of HKFRS 16, the Group will recognise a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for low value or short-term leases.

Furthermore, the application of new requirements may result in changes in measurement, presentation and disclosure as indicated above.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (“Listing Rules”) and by the Hong Kong Companies Ordinance (“CO”).

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for good and services.

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, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of HKFRS 2 *Share-based Payment*, leasing transactions that are within the scope of HKAS 17 *Leases*, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in HKAS 2 *Inventories* or value in use in HKAS 36 *Impairment of Assets*.

For financial instruments which are transferred at fair value and a valuation technique that unobservable inputs is to be used to measure fair value in subsequent periods, the valuation technique is calibrated so that the results of the valuation technique equals the transaction price.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

### **Basis of consolidation**

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses 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 listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### **Basis of consolidation (Continued)**

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

### **Investments in associates**

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. The financial statements of associates used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate. Changes in net assets of the associate other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of that associate.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### **Investments in associates (Continued)**

An investment in an associate is accounted for using the equity method from the date on which the investee becomes an associate. On acquisition of the investment in an associate, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in period in which the investment is acquired.

The requirements of HKAS 39 are applied to determine whether it is necessary to recognise any impairment loss with respect to the Group's investment in an associate. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with HKAS 36 as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with HKAS 36 to the extent that the recoverable amount of the investment subsequently increases.

### **Revenue recognition**

Revenue is measured at the fair value of the consideration received or receivable for goods sold in the normal course of business, net of allowances, applicable sales taxes and mineral royalty.

Revenue is recognised when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the Group and when specific criteria have been met for each of the Group's activities, as described below.

#### *Sale of goods*

Revenue from the sale of goods is recognised when the goods are delivered and titles have passed.

In most instances, sales revenue is recognised when the product is delivered to the destination specified by the customer, which is typically the vessel on which it is shipped, the destination port or the customer's premises.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Revenue recognition (Continued)

#### *Sale of goods (Continued)*

For certain sales of the Group, the sales price is determined on a provisional basis at the date of sale, as the final selling price is subject to the grades of copper, gold and silver in the Group's copper products and movements in market prices up to the date of final pricing, normally ranging from 30 to 90 days after initial booking. Revenue on provisionally priced sales is recognised based on the estimated grades of copper, gold and silver in the Group's copper products and fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the character of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously in trade receivables on the consolidated statement of financial position and changes in fair value are recognised in profit or loss. In all cases, fair value is estimated by reference to forward market prices.

#### *Dividend and interest income*

Dividend income from investments is recognised when the shareholders' right to receive payment has been established.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

### Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Leasing (Continued)

#### *The Group as lessor*

Amounts due from lessees under finance leases are recorded as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased assets. Such costs are recognised on a straight-line basis over the lease term.

#### *The Group as lessee*

Operating lease payments, including the cost of acquiring land held under operating leases, are recognised as an expense on a straight-line basis over the lease term. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

### Foreign currencies

The functional currency of companies comprising the Group is US\$. In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### **Borrowing costs**

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

### **Government grants**

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

### **Employee benefits**

#### *Retirement benefit costs*

Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Employee benefits (Continued)

#### *Short-term employee benefits*

Short-term employees benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another HKFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

### Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

#### *Current tax*

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the consolidated statement of profit or loss and other comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

#### *Deferred tax*

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Taxation (Continued)

#### *Deferred tax (Continued)*

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associate, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

#### *Current and deferred tax for the year*

Current and deferred tax for the year is recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Property, plant and equipment

Property, plant and equipment including buildings held for use in the production or supply of goods or services, or for administrative purpose (other than construction in progress as described below), are stated in the consolidated statement of financial position at cost, less subsequent accumulated depreciation and subsequent accumulated impairment losses, if any.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Cost includes professional fees and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Such properties are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property, plant and equipment, commences when the assets are ready for their intended use.

Depreciation is recognised so as to write off the cost of assets other than construction in progress less their residual values over their estimated useful lives, using the straight-line method or the unit-of-production method.

Mining properties in the course of development or construction are included construction in progress and are not depreciated. Capitalised mining properties costs are depreciated once commercial production commences, as described in "Property, plant and equipment – mining properties".

Depreciation for other property, plant and equipment (other than construction in progress) is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

Land and buildings	10 to 30 years
Machinery and equipment	3 to 10 years
Motor vehicles	5 years

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of any item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Property, plant and equipment (Continued)

#### *Mining properties*

The costs of mining properties, which include the costs of acquiring and developing mining properties, are firstly capitalised as property, plant and equipment under the heading of “Construction in progress” in the year in which they are incurred and then reclassified to the heading of “Mining properties” when they are ready for commercial production.

When a decision is taken that a mining property is viable for commercial production, all pre-production primary development expenditure other than land, buildings, plant and equipment, etc. is capitalised as part of the cost of the mining property until the mining property is capable of commercial production. From that point, capitalised mining properties costs are depreciated on a unit-of-production basis over the total estimated remaining commercial reserves of each property or a group of properties.

Stripping costs incurred in the development of a mine (or pit) before the production commences are capitalised as part of the cost of constructing the mine (or pit) and subsequently amortised over the life of the mine (or pit) on a unit of production basis. Stripping costs and secondary development expenditure, mainly comprising costs on blasting, haulage, excavation, etc. incurred during the production stage of an ore body, to the extent that the benefit from these activities is realised in the form of improved access ore, is recognised as a non-current asset (“Mining properties”) when certain criteria are met, whereas the costs of normal on-going operational stripping activities are accounted for in accordance with HKAS 2 *Inventories*.

In circumstances where a mining property is abandoned, the cumulative capitalised costs relating to the property are written off in the period.

Commercial reserves are proved and probable reserves. Changes in the commercial reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### **Mining rights**

The cost of mining rights either as an individual asset purchase or as part of a business combination is capitalised and represents the asset's fair value at the date of acquisition.

Subsequent to initial recognition, mining rights are reported at costs less accumulated amortisation and any accumulated impairment losses. The costs of mining rights are amortised or depreciated on a unit-of-production basis over the total estimated remaining commercial reserves of each mine.

A mining right is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains and losses arising from derecognition of a mining right, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

### **Impairment of property, plant and equipment and mining rights**

At the end of each reporting period, the Group reviews the carrying amounts of its property, plant and equipment and mining rights to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the relevant asset is estimated in order to determine the extent of the impairment loss (if any).

When it is not possible to estimate the recoverable amount of an assets individually, the Group estimates the recoverable amount of the cash-generating unit ("CGU") to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual CGUs, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or a CGU) for which the estimates of future cash flows have not been adjusted.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### **Impairment of property, plant and equipment and mining rights (Continued)**

If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or the CGU) is reduced to its recoverable amount. In allocating the impairment loss, the impairment loss is allocated to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or CGU) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

### **Inventories**

Inventories are stated at the lower of cost and net realisable value.

Costs of inventories are determined on the following bases:

- Purchased copper concentrates and all other materials, including spare parts and consumables, are valued on weighted average basis.
- Finished products are valued at raw material cost plus costs of conversion, comprising labor costs and an attributable proportion of manufacturing overheads based on normal levels of activity.

Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material).

### Environmental rehabilitation

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a mine or production facilities. Costs arising from facility decommissioning and dismantling; removal or treatment of waste materials; site and land rehabilitation, discounted to net present value, are provided for and a corresponding amount is capitalised at the start of each project, as soon as the obligation to incur such costs arises. These costs are charged to profit or loss over the life of the operation through the depreciation of the asset and the unwinding of the discount on the provision. The cost estimates are reviewed periodically and are adjusted to reflect known developments which may have an impact on the cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision due to factors such as updated cost estimates, new disturbance and revisions to discount rates. The adjusted cost of the asset is depreciated prospectively over the life of the operation. The unwinding of the discount is shown as a finance cost in profit or loss.

Costs for restoration of subsequent site damage which is caused on an ongoing basis during production are provided for at their net present values and charged to profit or loss as extraction progresses. Where the costs of site restoration are not anticipated to be significant, they are expensed as incurred.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognised immediately in profit or loss.

#### *Financial assets*

Financial assets are classified into the following specified categories: financial assets at FVTPL and loans and receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. All regular way purchases or sales of financial assets are recognised and derecognised on a settlement date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

#### Effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Interest income is recognised on an effective interest basis for debt instruments other than those financial assets classified as at FVTPL.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### *Financial assets (Continued)*

#### Financial assets at FVTPL

Financial assets are classified as at FVTPL when the financial asset is either held for trading or it is designated as at FVTPL.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognised in profit or loss. The net gain or loss recognised in profit or loss is included in “other gains and losses” for other line items, as appropriate. Fair value is determined in the manner described in note 34.

#### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables (including trade and other receivables (excluding the embedded commodity derivative component), bank deposit, restricted bank balances, bank balances and cash) are measured at amortised cost using the effective interest method, less any impairment (see accounting policy on impairment loss on financial assets below).

Interest income is recognised by applying the effective interest rate, except for short-term receivables when the recognition of interest would be immaterial.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### *Financial assets (Continued)*

##### Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the financial assets have been affected.

For financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- breach of contract, such as a default or delinquency in interest or principal payments; or
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation.

Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets that are carried at amortised cost, the amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

The carrying amounts of financial assets is reduced by the impairment loss directly for all financial assets with the exception of trade and other receivables, where the carrying amount is reduced through the use of an allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss. When trade and other receivables are considered uncollectible, they are written off against the allowance account. Subsequent recoveries of amounts previously written off are credited to profit or loss.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### *Financial assets (Continued)*

#### Impairment of financial assets (Continued)

For financial assets measured at amortised cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

#### *Financial liabilities and equity instruments*

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

#### Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

#### Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Interest expense is recognised on an effective interest basis other than financial liabilities classified as at FVTPL.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### *Financial liabilities and equity instruments (Continued)*

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) held for trading or (ii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is a part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on remeasurement recognised in profit or loss. The net gain or loss recognised in profit or loss is included in the "Other gains and losses" line item. Fair value is determined in the manner described in note 34.

Financial liabilities at amortised cost

Financial liabilities including trade and other payables (excluding the embedded commodity derivative component), bank overdrafts, bank and other borrowings are subsequently measured at amortised cost using the effective interest method.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### *Derivative financial instruments*

The Group uses derivative financial instruments to hedge its commodity price risk. The Group's derivative financial instruments mainly include copper future contracts (mainly standardised copper cathode future contracts in London Metal Exchange ("LME")) and those embedded in provisional price arrangements.

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which case the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

#### *Embedded derivatives*

Derivatives embedded in non-derivative host contracts are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL. The embedded derivatives are presented in the same line item as the host contract.

#### *Derecognition*

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire.

On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in note 3, the Directors is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The followings are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

#### **Impairment of property, plant and equipment**

In determining whether an asset is impaired or the event previously causing the impairment no longer exists, the Group has to exercise judgement particularly in assessing: (1) whether an event has occurred that may affect the asset's value or such event affecting the asset's value has not been in existence; (2) whether the carrying value of an asset can be supported by its recoverable amount, which is the higher of an asset's or the CGU's fair value less costs to sell and its value in use; (3) the appropriate key assumptions to be applied in preparing cash flow projections including whether these cash flow projections are discounted using an appropriate rate. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the assets belongs.

Changes in estimations of the cash flow projections, such as the change in discount rates or the future copper price assumptions, may materially affect the amount of recoverable amount derived for impairment test purpose, which would then result in further recognition or reversal of impairment loss.

As at 31 December 2017, the carrying amount of property, plant and equipment was US\$1,021,166,000 (2016: US\$905,087,000).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

#### **Depreciation of mining right and properties**

Mining right and properties costs are depreciated using the unit of production method (the "UOP"). The calculation of the UOP rate of depreciation, and therefore the annual depreciation charge to operations, can fluctuate from initial estimates. This could generally result when there are significant changes in any of the factors or assumptions used in estimating mine reserves, notably changes in the geology of the reserves and assumptions used in determining the economic feasibility of the reserves. Such changes in reserves could similarly impact the useful lives of assets depreciated on a straight-line basis, where those lives are limited to the life of the project, which, in turn is limited to the lives of the proved and probable mineral reserves. Estimates of proved and probable reserves are prepared by experts in extraction, geology and reserve determination. Assessments of UOP rates against the estimated reserve base and the operating and development plan are performed regularly.

#### **Restoration, rehabilitation and environmental costs**

Provision is made for costs associated with restoration and rehabilitation of mining sites and certain production facilities of the Group as soon as the obligation to incur such costs arises. Such restoration and closure costs are typical of mining, leaching and smelting industries and they are normally incurred at the end of the life of the mine and production facilities. The costs are estimated on the basis of mine/plant closure plans and the estimated discounted costs of dismantling and removing these facilities and the costs of restoration are capitalised when incurred reflecting the Group's obligations at that time. A corresponding provision is created on the liability side.

The capitalised asset is charged to profit or loss through depreciation over the life of the operation and the provision is increased each period via unwinding the discount on the provision. The management estimates are mainly based on the local legislation. The actual costs and cash outflows may differ from estimates because of changes in laws and regulations, changes in prices, analysis of site conditions and changes in restoration technology.

The Group provides for such costs in accordance with the statutory requirements.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

#### Taxes

The Group is subject to taxes in a number of jurisdictions. Significant judgement is required in determining the tax position and the estimates and assumptions in relation to the provision for taxes, the VAT incentives on export, the progressive tax rate applicable for deferred tax provisions and the recovery of deferred tax assets, having regard to the nature and timing of their origination and compliance with the relevant tax legislation.

As at 31 December 2017, deferred tax assets of US\$52,456,000 (2016: US\$59,702,000) in relation to the unused tax losses, impairment of property, plant and equipment and impairment loss on excess and obsolete inventories were recognised in the consolidated statement of financial position (see note 30). Deferred tax assets are recognised only if it is probable that future taxable profits will be available to utilise those temporary differences and losses, and the tax losses continue to be available having regard to the nature and timing of their origination and compliance with the relevant tax legislation associated with their recoupment. In addition, the applicable tax rate used in recognising deferred tax assets is determined by the forecast proportion of assessable income against gross sales and the timing of the usage of tax losses when the entity was granted income tax incentives.

The contingent liabilities arising from the VAT assessment about a subsidiary in Zambia are disclosed in note 38. The Directors have made a significant judgement in respect of the possible outcome of the final decision of the relevant tax authority and determined that the Group has been in compliance with the relevant tax legislation and qualified for the VAT incentives on export. The determination is based on the historical experience and understanding of the tax legislation and the VAT assessment is closely monitored by the Directors. Where the final assessment is different with what the Directors expected, a material provision may arise.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 5. REVENUE

An analysis of the Group's revenue from sale of goods for the year is as follows:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Blister copper	<b>1,285,166</b>	943,461
Copper cathodes	<b>494,288</b>	335,409
Copper-cobalt alloy	<b>3,861</b>	–
Sulfuric acid	<b>55,416</b>	34,421
	<b>1,838,731</b>	1,313,291

### 6. SEGMENT INFORMATION

The Group's operating segments are identified on the basis of internal reports about components of the Group that are regularly reviewed by the chief operating decision maker, being the Operating Management Committee (the "CODM"), in order to allocate resources to the segments and to assess their performance.

Information reported to the CODM for the purposes of resource allocation and assessment of segment performance focuses on the types of goods produced. The Group's operating and reportable segments in current year under HKFRS 8 *Operating Segments* are as follows:

- Leaching – Production and sale of copper cathodes (including exploration and mining of oxide copper mines) which are produced using the solvent extraction-electrowinning technology; and
- Smelting – Production and sale of blister copper (including exploration and mining of sulfuric copper mines), copper-cobalt alloy and sulfuric acid which are produced using ISA smelting technology. Sulfuric acid is a by-product in the production of blister copper.

No operating segments have been aggregated to be derived from the reportable segments of the Group.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 6. SEGMENT INFORMATION (Continued)

#### Segment revenue and results

The following is an analysis of the Group's revenue and results by reportable and operating segment.

	<b>Leaching</b> <i>US\$'000</i>	<b>Smelting</b> <i>US\$'000</i>	<b>Consolidated</b> <i>US\$'000</i>
<b>For the year ended 31 December 2017</b>			
Total segment revenue	505,037	1,365,344	1,870,381
Less: inter-segment sales	(10,749)	(20,901)	(31,650)
Revenue from external customers	494,288	1,344,443	1,838,731
Segment profit	140,233	102,116	242,349
Unallocated income*			3,501
Unallocated expenses#			(11,991)
Profit for the year			233,859



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 6. SEGMENT INFORMATION (Continued)

### Segment revenue and results (Continued)

	Leaching <i>US\$'000</i>	Smelting <i>US\$'000</i>	Consolidated <i>US\$'000</i>
For the year ended 31 December 2016			
Total segment revenue	340,747	997,196	1,337,943
Less: inter-segment sales	(5,338)	(19,314)	(24,652)
Revenue from external customers	335,409	977,882	1,313,291
Segment profit	34,932	20,184	55,116
Unallocated income*			922
Unallocated expenses#			(10,591)
Profit for the year			45,447

\* The unallocated income mainly represents the interest income arising from the bank deposits and bank balances of the Company, China Nonferrous Mining Holdings Limited (“CNMH”), a directly wholly-owned subsidiary of the Company which directly holds the Group’s shareholdings in the subsidiaries in Zambia, China Nonferrous Mining Hong Kong Holdings Limited (“CNMHK”), a directly controlling subsidiary of the Company which directly holds the Group’s shareholdings in two subsidiaries in Democratic Republic of Congo (“DRC”), and China Nonferrous Mining Hong Kong Investment Limited (“CNMHKI”), a directly wholly-owned subsidiary of the Company which directly holds the Group’s shareholdings in two subsidiaries in DRC (collectively referred to as the “Holding Companies”).

# The unallocated expenses mainly represent the administrative expenses, interest expenses and income tax expenses of the Holding Companies.

The accounting policies of the operating and reportable segments are the same as the Group’s accounting policies described in note 3. Segment profit represents the profit for the year earned by each segment. This is the measure reported to the chief operating decision maker for the purposes of resource allocation and assessment of segment performance.

Inter-segment sales are charged at prevailing market rates.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 6. SEGMENT INFORMATION (Continued)

#### Segment assets and liabilities

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
<b>Segment assets</b>		
– Leaching	819,186	767,561
– Smelting	1,610,089	1,403,571
Total segment assets	2,429,275	2,171,132
Unallocated assets*	385,095	267,824
Elimination	(11,173)	(9,215)
Consolidated total assets	2,803,197	2,429,741
<b>Segment liabilities</b>		
– Leaching	680,942	659,697
– Smelting	966,332	806,129
Total segment liabilities	1,647,274	1,465,826
Unallocated liabilities*	127,012	129,484
Elimination	(11,173)	(9,215)
Consolidated total liabilities	1,763,113	1,586,095

\* The unallocated assets and liabilities mainly represent those of the Holding Companies.

For the purposes of monitoring segment performance and allocating resources between segments, all assets and liabilities, except for certain assets and liabilities of the Holding Companies, are allocated to reportable and operating segments.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 6. SEGMENT INFORMATION (Continued)

### Other segment information

Amounts included in the measure of segment profit and segment assets:

	Leaching <i>US\$'000</i>	Smelting <i>US\$'000</i>	Unallocated <i>US\$'000</i>	Consolidated <i>US\$'000</i>
<b>For the year ended 31 December 2017</b>				
Addition to non-current asset <sup>#</sup>	16,319	212,261	–	228,580
Interest income*	801	446	3,501	4,748
Finance costs	16,452	6,656	9	23,117
Finance income earned under finance leases to fellow subsidiaries	189	–	–	189
Gain arising on change in fair value of derivatives	25,592	7,443	–	33,035
Income tax expense	42,778	33,711	8,879	85,368
Depreciation of property, plant and equipment	68,131	38,023	–	106,154
Write-down of inventories	–	3,189	–	3,189
	<i>Leaching US\$'000</i>	<i>Smelting US\$'000</i>	<i>Unallocated US\$'000</i>	<i>Consolidated US\$'000</i>
<b>For the year ended 31 December 2016</b>				
Addition to non-current asset <sup>#</sup>	20,220	93,343	–	113,563
Interest income*	68	848	568	1,484
Finance costs	15,431	4,669	2,311	22,411
Finance income earned under finance leases to fellow subsidiaries	1,229	–	–	1,229
Gain (loss) arising on change in fair value of derivatives	25,289	(20,192)	–	5,097
Income tax expense	6,592	5,911	11,147	23,650
Depreciation of property, plant and equipment	62,162	44,497	–	106,659
Write-down of inventories	–	13,827	–	13,827

\* Unallocated interest income represents interest income earned from bank balances of the Holding Companies.

# Excluding financial instruments and deferred tax assets.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 6. SEGMENT INFORMATION (Continued)

#### Revenue from major products

The Group's revenue from its major products is set out in note 5.

#### Geographical information

The Group's operations are mainly in Zambia and DRC. US\$948,229,000 (2016: US\$822,436,000) and US\$95,162,000 (2016: US\$108,986,000) of its non-current assets (other than financial instruments and deferred tax assets) are in Zambia and DRC, respectively, by location of assets.

The Group's revenue from external customers by their geographical locations which are based on the destination of shipments is detailed below:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
PRC	<b>963,106</b>	891,101
Hong Kong	<b>325,217</b>	173,054
Switzerland	<b>232,376</b>	136,696
Singapore	<b>170,629</b>	15,781
Africa	<b>75,613</b>	27,226
Luxemburg	<b>71,790</b>	69,433
	<b>1,838,731</b>	1,313,291

#### Information about major customers

Revenue from customers individually contributing over 10% of the total revenue of the Group are as follows:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Customer A		
– Leaching	<b>297,420</b>	221,534
– Smelting	<b>661,830</b>	669,567
Customer B		
– Smelting	<b>325,216</b>	173,054
Customer C		
– Smelting	<b>196,062</b>	108,035

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 7. OTHER INCOME

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Interest income	4,748	1,484
Government grant	880	3,372
Net income earned under finance leases to fellow subsidiaries	189	1,229
Net income from sale of spare parts and other materials	577	559
Others	3,205	628
	<b>9,599</b>	7,272

### 8. FINANCE COSTS

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Interest on bank and other borrowings	36,103	35,701
Unwinding of the discount ( <i>note 29</i> )	415	524
	<b>36,518</b>	36,225
Less: Amounts capitalised in construction in progress arose on the borrowings specifically for the purpose of qualifying assets	<b>(13,401)</b>	(13,814)
	<b>23,117</b>	22,411
The weighted average capitalisation rate used to determine the amount of borrowing costs arose on the borrowings specifically eligible for capitalisation (per annum)	<b>4.46%</b>	3.49%

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 9. OTHER EXPENSES

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Expense on suspension of production ( <i>note</i> )	<b>14,899</b>	32,608
Penalty arising from tax audit	–	3,837
Others	<b>2,700</b>	7,670
	<b>17,599</b>	44,115

*Note:* The amount represented the operating expenses, including depreciation of property, plant and equipment, incurred during the year in relation to the the Baluba Center Mine of CNMC Luanshya Copper Mines PLC (“Luanshya”), which has been suspended as a result of the force majeure event that Zambia has reduced the power supply.

### 10. OTHER GAINS AND LOSSES

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Foreign exchange (losses) gains, net	<b>(7,240)</b>	3,440
Gain (loss) on disposal of property, plant and equipment, net	<b>186</b>	(3,152)
Loss on impairment of trade receivables	–	(2,325)
Loss on impairment of input VAT receivables	<b>(7,860)</b>	–
Gain arising on change in fair value of derivatives	<b>33,035</b>	5,097
	<b>18,121</b>	3,060

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 11. INCOME TAX EXPENSE

Income tax expense recognised in profit or loss:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Current tax:		
– Income tax in The Republic of Ireland (“Ireland”)	<b>3,937</b>	1,928
– Income tax in DRC	<b>29,208</b>	9,268
– Income tax in Zambia	<b>37,479</b>	9,914
	<b>70,624</b>	21,110
Deferred tax ( <i>note 30</i> )		
– Current year	<b>14,744</b>	2,540
<b>Total income tax expense</b>	<b>85,368</b>	23,650

Income tax in Ireland is calculated at 12.5% (2016: 12.5%) on the estimated assessable income.

Income tax in DRC is calculated at 30% (2016: 30%) on the estimated assessable income.

Income tax in Zambia is calculated at 35% (2016: 35%) on the assessable income, except for that arising from mining activities which is stated as below.

The applicable tax rate on income from mining operation in Zambia is 30% where the assessable income does not exceed 8% of gross sales and variable tax rate up to 15% plus 30% where the assessable income exceed 8% of gross sales. Accordingly for both reporting periods, the applicable tax rate on the assessable income of Chambishi Copper Smelter Limited (“CCS”) and Sino-Metals Leach Zambia Limited (“SML”) is 35%, and the applicable tax rate on the assessable income of NFC Africa Mining PLC (“NFCA”) and Luanshya ranges from 30% to 45%.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 11. INCOME TAX EXPENSE (Continued)

The Group enjoyed the following income tax incentives:

- CCS is eligible for the tax exemption for the first five profitable years; 50% income tax relief for the next three years thereafter; and 25% of income tax relief for the next two years thereafter. The tax incentives are applicable to the assessable profit generated from the two different phases of production facilities of CCS with different dates of commencement of the tax incentives. One of the phases of production facilities of CCS is under the third year of 50% income tax relief during the current year (2016:50%). The remaining phase of production facilities of CCS is still under the tax holiday during the current year.
- SML was also granted ten-year income tax incentives of zero rate income tax for the first five profitable years; 50% of income tax relief for the next three years thereafter; and 25% of income tax relief for the remaining two years. The applicable tax rate for SML for the year ended 31 December 2017 was 26.25% (2016: 26.25%).

In the opinion of the Company's Zambian counsel, no provision for withholding tax on the undistributed profit of the Zambian subsidiaries is required to be made before 2016. According to the new Convention between the Republic of Zambia and Ireland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Tax on, which is effective on 1 January 2016, certain dividend paid by a company which is a resident of Zambia to a resident of Ireland may be taxed in Zambia according to tax law of Zambia, but as the beneficial owner of the dividends is a resident of Ireland, the tax so charged shall not exceed 7.5% of the gross amount of the dividends in Zambia.

CNMH enjoyed withholding tax incentive on the dividend income from CCS and the rate of withholding tax is zero per annum from 2013 to 2017.

Certain dividend income of CNMHK from DRC subsidiaries may be subject to income tax in DRC at a withholding tax rate of 10%.

At the end of the reporting period, deferred tax liability of US\$33,499,000 (2016: US\$28,915,000) has been provided for temporary differences associated with undistributed earnings of these subsidiaries (see note 30).



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 11. INCOME TAX EXPENSE (Continued)

The income tax expense for the year can be reconciled to the profit before tax per the consolidated statement of profit or loss and other comprehensive income as follows:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Profit before tax	<b>319,227</b>	69,097
Tax at income tax rate in DRC – for operations at 30%	<b>26,172</b>	13,092
Tax at income tax rate in Zambia – for operations at 30%	<b>29,776</b>	(13,489)
– for operations at 35%	<b>46,662</b>	25,235
	<b>102,610</b>	24,838
Tax effect of expenses not deductible for tax purpose	<b>9,165</b>	8,130
Deferred and withholding tax on undistributed earnings	<b>8,862</b>	11,147
Effect of tax incentives granted to the Group	<b>(29,397)</b>	(23,880)
Utilisation of tax losses previously not recognised	<b>(3,625)</b>	(613)
Effect of deferred taxation on deductible temporary differences not recognised	–	4,028
Recognised deferred taxation on deductible temporary differences previously not recognised	<b>(2,247)</b>	–
Income tax expense for the year	<b>85,368</b>	23,650

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 11. INCOME TAX EXPENSE (Continued)

### Other taxes

The Group is also subject to other non-income taxes as below:

The Group is subject to VAT at 16% on purchases and sales in Zambia and DRC whereas VAT is exempted on export, and relevant input VAT paid for purchases supported by valid VAT invoices could be refunded by the ZRA and DRC to the extent total input VAT paid on purchases exceeds total output VAT payable on domestic sales.

On 14 August 2015, the Parliament of Zambia enacted Mines and Minerals Development Act, 2015, effective 1 July 2015, which included, inter alia, to change a mineral royalty at the rate of 9% (20% before amendments) for open cast mining operations and 6% (8% before amendments) for underground mining operation of the norm value of the base metals or precious metals produced or recoverable under the license.

On 7 June 2016, the Parliament of Zambia enacted "An Act to amend the Mines and Minerals Development Act, 2015" with effect from 1 June 2016, which included, to change a mineral royalty at the rate of 4% when the norm price of copper is less than US\$4,500 per tonne, 5% when the norm price of copper is US\$4,500 per tonne or greater but less than US\$6,000 per tonne and 6% when the norm price of copper is US\$6,000 per tonne or greater. The mineral royalty rates are applicable for both open cast mining operations and underground mining operations.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 12. PROFIT FOR THE YEAR

Profit for the year has been arrived at after charging:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Depreciation of property, plant and equipment	<b>106,154</b>	106,659
Amortisation of mining right	<b>10,366</b>	634
Total depreciation and amortisation	<b>116,520</b>	107,293
Less: capitalised in inventories	<b>102,423</b>	95,236
capitalised in construction in progress	<b>1,186</b>	656
	<b>12,911</b>	11,401
Auditor's remuneration	<b>1,147</b>	1,203
Staff costs (including Directors' remuneration as disclosed in note 13):		
Salaries, wages and welfare	<b>65,564</b>	63,881
Retirement benefit schemes contributions	<b>5,749</b>	6,309
Total staff costs	<b>71,313</b>	70,190
Less: capitalised in inventories	<b>42,210</b>	40,685
capitalised in construction in progress	<b>3,819</b>	3,038
	<b>25,284</b>	26,467
Cost of inventories recognised as an expense	<b>1,449,357</b>	1,124,198
Donations	<b>287</b>	169
Minimum lease payments in respect of		
– Land and buildings	<b>6,172</b>	6,219
– Machinery and equipment	<b>2</b>	11

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS

### Directors

Details of the emoluments paid or payable to the Directors are as follows:

Name of director	2017				
	Other emoluments				Total emoluments US\$'000
	Fees US\$'000	Salaries and other allowances US\$'000	Discretionary performance bonus* US\$'000	Retirement benefit schemes contributions US\$'000	
<b>Executive Directors</b>					
Mr. Xinghu Tao	-	-	-	-	-
Mr. Xingeng Luo (i)	-	-	-	-	-
Mr. Lin Zhang (ii)	-	46	-	6	52
Mr. Chunlai Wang	-	114	32	11	157
Mr. Wei Fan	-	116	30	8	154
Mr. Kaishou Xie	-	43	-	-	43
	-	319	62	25	406
<b>Non-Executive Director</b>					
Mr. Diyong Yan	-	-	-	-	-
<b>Independent Non-executive Directors</b>					
Mr. Chuanyao Sun	36	-	-	-	36
Mr. Jingwei Liu	36	-	-	-	36
Mr. Huanfei Guan	36	-	-	-	36
	108	-	-	-	108
<b>Total</b>					<b>514</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

Name of director	2016				
	Fees <i>US\$'000</i>	Other emoluments			Total emoluments <i>US\$'000</i>
		Salaries and other allowances <i>US\$'000</i>	Discretionary performance bonus* <i>US\$'000</i>	Retirement benefit schemes contributions <i>US\$'000</i>	
<b>Executive Directors</b>					
Mr. Xinghu Tao	–	–	–	–	–
Mr. Xingeng Luo <i>(i)</i>	–	30	28	2	60
Mr. Chunlai Wang	–	114	–	10	124
Mr. Wei Fan	–	121	31	7	159
Mr. Kaishou Xie	–	86	75	–	161
	–	351	134	19	504
<b>Non-Executive Director</b>					
Mr. Diyong Yan	–	–	–	–	–
<b>Independent Non-executive Directors</b>					
Mr. Chuanyao Sun	36	–	–	–	36
Mr. Jingwei Liu	36	–	–	–	36
Mr. Huanfei Guan	36	–	–	–	36
	108	–	–	–	108
<b>Total</b>					<b>612</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### Directors (Continued)

- (i) Mr. Xingeng Luo was resigned as executive director of the Company with effect from 19 May 2017.
  - (ii) Mr. Lin Zhang was appointed as executive director and the President of the Company with effect from 19 May 2017.
- \* Certain executive directors of the Company are entitled to bonus payments which are determined based on operation results of the subsidiary for which the director is in charge.

The executive directors' emoluments shown above were mainly for their services in connection with the management of the affairs of the Company and the Group.

The independent non-executive directors' emoluments shown above were mainly for their services as directors of the Company.

No Directors waived any emoluments in the year ended 31 December 2017 (2016: Nil).

Mr. Xinghu Tao, the chairman of the Board, assumes the role as a chief executive and his emoluments for services rendered by him to the Group have been borne by CNMC.

Mr. Xingeng Luo has resigned from general manager of one of the subsidiaries of the Group and assumed a role in CNMC from April 2016. His emoluments for services rendered by him to the Group have been borne by CNMC from then on.

Mr. Kaishou Xie has assumed a role in CNMC from May 2017. His emoluments for services rendered by him to the Group have been borne by CNMC from then on.

Mr. Diyong Yan's emoluments for services rendered by him to the Group have been borne by CNMC.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### Employees

Of the five individuals with the highest emoluments in the Group, two (2016: two) were Directors whose emoluments are included in the disclosure above. The emoluments of the remaining three (2016: three) individuals were as follows:

	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Salaries, other allowances and bonus	<b>319</b>	277
Discretionary performance bonus	<b>138</b>	187
Retirement benefit schemes contributions	<b>16</b>	16
	<b>473</b>	480

The emoluments of the above employees were within the following bands:

	<b>2017</b> <b>Number of employees</b>	2016
HK\$1,000,001 to HK\$1,500,000	<b>3</b>	3

### 14. DIVIDENDS

No dividend was paid, declared or proposed during the year ended 31 December 2017 and 2016.

Subsequent to the end of the reporting period, final dividend in respect of the year ended 31 December 2017 of US¢0.6124 per share amounting to approximately US\$21,367,000 (2016: nil) has been proposed by the Directors and is subject to the approval of the shareholders of the Company in the forthcoming annual general meeting.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 15. EARNINGS PER SHARE

	2017	2016
Profit for the year attributable to owners of the Company for the purpose of basic and diluted earnings per share (in US\$'000)	<b>142,428</b>	11,832
Number of ordinary shares for the purpose of basic and diluted earnings per share ('000)	<b>3,489,036</b>	3,489,036
Earnings per share		
– Basic and diluted (US cents per share)	<b>4.08</b>	0.34
– Basic and diluted (equivalent to approximately HK\$ per share)	<b>0.32</b>	0.03

During the years ended 31 December 2017 and 2016, there was no potential ordinary share outstanding with diluted impact.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 16. PROPERTY, PLANT AND EQUIPMENT

	Mining properties <i>US\$'000</i>	Land and buildings <i>US\$'000</i>	Machinery and equipment <i>US\$'000</i>	Motor vehicles <i>US\$'000</i>	Construction in progress <i>US\$'000</i>	Total <i>US\$'000</i>
<b>Cost</b>						
At 1 January 2016	410,638	408,988	685,873	63,415	316,032	1,884,946
Additions	7,353	186	8,064	3,830	91,681	111,114
Transfer from construction in progress	32,435	21,643	15,227	–	(69,305)	–
Disposals	–	(5,296)	(12,590)	(10,379)	–	(28,265)
At 31 December 2016	450,426	425,521	696,574	56,866	338,408	1,967,795
Additions	<b>1,818</b>	<b>260</b>	<b>14,163</b>	<b>3,930</b>	<b>202,153</b>	<b>222,324</b>
Transfer from construction in progress	<b>1,667</b>	<b>12,124</b>	<b>5,176</b>	<b>–</b>	<b>(18,967)</b>	<b>–</b>
Disposals	–	–	(421)	(1,232)	–	(1,653)
<b>At 31 December 2017</b>	<b>453,911</b>	<b>437,905</b>	<b>715,492</b>	<b>59,564</b>	<b>521,594</b>	<b>2,188,466</b>
<b>Depreciation and impairment</b>						
At 1 January 2016	(252,865)	(128,062)	(389,066)	(49,032)	(159,568)	(978,593)
Depreciation	(16,242)	(22,137)	(61,916)	(6,364)	–	(106,659)
Disposals	–	3,388	11,158	7,998	–	22,544
At 31 December 2016	(269,107)	(146,811)	(439,824)	(47,398)	(159,568)	(1,062,708)
Depreciation	<b>(28,225)</b>	<b>(21,344)</b>	<b>(51,757)</b>	<b>(4,828)</b>	<b>–</b>	<b>(106,154)</b>
Disposals	–	–	337	1,225	–	1,562
<b>At 31 December 2017</b>	<b>(297,332)</b>	<b>(168,155)</b>	<b>(491,244)</b>	<b>(51,001)</b>	<b>(159,568)</b>	<b>(1,167,300)</b>
<b>Carrying amounts</b>						
<b>At 31 December 2017</b>	<b>156,579</b>	<b>269,750</b>	<b>224,248</b>	<b>8,563</b>	<b>362,026</b>	<b>1,021,166</b>
At 31 December 2016	181,319	278,710	256,750	9,468	178,840	905,087

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 17. MINING RIGHT

	<b>Mining right</b> <b>US\$ '000</b>
Cost	
At 31 December 2016 and 2017	11,000
Amortisation	
At 1 January 2016	–
Addition	(634)
At 31 December 2016	(634)
Addition	(10,366)
At 31 December 2017	(11,000)
Carrying amount	
At 31 December 2017	–
At 31 December 2016	10,366

The maturity of the mining rights is 30 years. The cost of the mining right is amortised on a UOP basis over the total estimated remaining commercial reserves. In the opinion of the Directors, the total estimated remaining commercial reserve was zero as at 31 December 2017.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 18. INTEREST IN AN ASSOCIATE

The amount represents the Group's share of net assets of the associate, being the Group's cost of investment. During the year ended 31 December 2017 and 2016, the associate was involved in trading of copper ores in DRC resulting in insignificant profit.

Details of the associate of the Group as at the end of the reporting period are set out below:

Name of company	Place/Country of operations and date of incorporation	Issued and fully paid-up ordinary capital	Equity interest/ voting power attributable to the Company as at 31 December		Principal activities
			2017	2016	
			%	%	
Huachin Minerals SARL	DRC 27 January 2012	US\$5,000,000	<b>20.33</b>	20.33	Mining, exploration and sale of copper ores

As the Group's interest in the associate is not significant, no further financial information of the associate is presented.

## 19. INVENTORIES

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Raw materials	<b>237,285</b>	200,182
Spare parts and consumables	<b>81,458</b>	76,019
Work in progress	<b>48,097</b>	32,504
Finished goods	<b>16,740</b>	8,119
	<b>383,580</b>	316,824

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 20. TRADE RECEIVABLES

	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
Trade receivables	<b>237,845</b>	227,146
Less: Allowance of doubtful debts	<b>(2,921)</b>	(2,921)
	<b>234,924</b>	224,225

The following is an aged analysis of trade receivables, presented based on invoice dates, net of allowance for doubtful debts:

	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
0 to 30 days	<b>216,464</b>	183,925
31 to 90 days	<b>15,587</b>	29,160
91 to 180 days	<b>1,868</b>	6,726
181 to 365 days	<b>417</b>	3,410
1–2 years	<b>588</b>	1,004
	<b>234,924</b>	224,225

The Group sells blister copper and copper cathodes under provisional pricing arrangements where final grades of copper, gold and silver in copper products are agreed based on third-party examination and final prices are set at the quotation period based on market prices. Revenues are recognised when the significant risks and rewards of ownership pass to the customer using past history of grades of copper, gold and silver in copper products based on internal examination statistics and forward prices for the expected date of final settlement.

Provisionally priced sales arrangements have the character of commodity derivatives which are included in the Group's trade receivables amounting to US\$1,556,000 (an asset) as at 31 December 2017 (2016: US\$27,024,000 (an asset)) and changes in fair value are recognised in profit or loss.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 20. TRADE RECEIVABLES (Continued)

Aging of receivables that are past due but not impaired is analysed as follows:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Overdue by:		
0 to 30 days	<b>32,971</b>	155,632
31 to 90 days	<b>15,587</b>	28,356
91 to 180 days	<b>1,868</b>	6,098
181 to 365 days	<b>417</b>	3,659
1–2 years	<b>588</b>	1,004
	<b>51,431</b>	194,749

The Group does not hold any collateral or other credit enhancements over these balances nor does it have a legal right of offset against any amounts owed by the Group to the counterparty.

The Group normally requires prepayments from customers before goods dispatch with the remainder to be settled not exceeding one month upon issuance of sales invoice. Allowances for doubtful debts are recognised against trade receivables based on estimated irrecoverable amounts determined by reference to past default experience of the counterparty and an analysis of the counterparty's current financial position.

Included in the Group's trade receivables are balances with the following related parties:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Fellow subsidiaries	<b>136,607</b>	141,494
Subsidiaries of a non-controlling shareholder of a subsidiary	<b>78,393</b>	49,690
	<b>215,000</b>	191,184

The above balances with related parties are unsecured, interest-free and are repayable according to the relevant sales contracts.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 20. TRADE RECEIVABLES (Continued)

In determining the recoverability of a trade receivable, the Directors consider any change in the credit quality of the trade receivable from the date credit was initially granted up to the end of the reporting period.

In the opinion of the Directors, the Group has concentration of credit risk because 91% (2016: 86%) of the trade receivables was due from the Group's two (2016: two) largest customers. These two (2016: two) largest customers accounted for 70% (2016: 81%) of the Group's sales and are large and reputable in the market. They have been trading with the Group with good settlement history.

The movements in the allowance for doubtful debts during the year are as follows:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
At beginning of the reporting period	<b>2,921</b>	596
Impairment loss recognised on receivables	-	2,921
Impairment loss reversed	-	(596)
At end of the reporting period	<b>2,921</b>	2,921

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 21. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	2017 US\$'000	2016 US\$'000
Non-current:		
Deposits for property, plant and equipment	7,642	946
Deposits in connection with the restoration and rehabilitation obligations ( <i>note 29</i> )	2,139	2,139
Premium for electricity supply ( <i>notes a and b</i> )	10,301	10,741
	<b>20,082</b>	13,826
Current:		
Prepayments for inventories and others	14,797	18,331
Input VAT receivables ( <i>note c</i> )	154,902	108,685
Deposits in futures margin accounts	14,220	29,915
Other receivables	4,240	6,647
Less: Allowance of input VAT receivables	(7,860)	–
	<b>180,299</b>	163,578

*Notes:*

- a. Pursuant to a power supply agreement (the “Luanshya Power Supply Agreement”) and a connection agreement (the “Luanshya Connection Agreement”) entered into between Luanshya and Copperbelt Energy Corporation Plc (“Copperbelt Energy”), a power supply company in Zambia, Luanshya undertook to construct certain power supply network assets (the “Luanshya Network Assets”) to enable Copperbelt Energy to supply the electricity to the mining/leaching project of Luanshya in Muliashi, Copperbelt Province of Zambia. According to the Luanshya Connection Agreement, Luanshya transferred the Luanshya Network Assets to Copperbelt Energy upon the completion of the construction in March 2012 at a consideration of US\$3,725,000. Luanshya received the consideration during the year ended 31 December 2016.

The total construction cost of the Luanshya Network Assets is US\$9,442,000 and the construction of the Luanshya Network Assets completed in March 2012.

The Directors consider that the difference between the construction costs for the Luanshya Network Assets and the consideration received from Copperbelt Energy amounting to US\$5,717,000 is, in substance, premium for electricity supply that will be amortised over the tenure of the Luanshya Power Supply Agreement (expiring in January 2025) upon the commencement of electricity consumption by Luanshya. During the year ended 31 December 2017, premium for electricity supply released to profit or loss is amounting to US\$440,000 (2016: US\$440,000).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 21. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS (Continued)

Notes: (Continued)

- b. Pursuant to a connection agreement (the “NFCA Connection Agreement”) entered into between NFCA and Copperbelt Energy, NFCA undertook to construct certain power supply network assets (the “NFCA Network Assets”) to enable Copperbelt Energy to supply the electricity to the Chambishi Southeast Mine Project of NFCA at Chambishi, Copperbelt Province of Zambia. According to the NFCA Connection Agreement, NFCA shall transfer the NFCA Network Assets to Copperbelt Energy on the date which Copperbelt Energy issues a Taking-Over Certificate. A consideration of US\$4,695,000 will be paid by Copperbelt Energy to NFCA within the seventh anniversary from the date of transfer, subject to NFCA’s fulfillment of consumption of electricity prescribed in the NFCA Connection Agreement.

The construction of NFCA Network Assets is completed and is in progress of transfer to Copperbelt Energy. The construction cost of the NFCA Network Assets is US\$7,003,000 as at 31 December 2017 (2016: US\$7,003,000).

The Directors consider that the difference between the construction costs for the NFCA Network Assets and the consideration received from Copperbelt Energy amounting to US\$2,308,000 are, in substance, premium for electricity supply that will be amortised over the estimated useful life of the NFCA Network Assets upon the commencement of electricity consumption by NFCA.

- c. In the opinion of the Directors, input VAT receivables amounting to US\$137,354,000 generated in Zambia will be recoverable within one year after the end of the reporting period and no provision for the input VAT recoverable is required. Input VAT receivables amounting to US\$17,548,000 generated in DRC may not be fully recoverable and the provision amounting to US\$7,860,000 has been made.

Included in the Group’s prepayments and other receivables and other assets are balances with the following related parties:

	<b>2017</b> <b>US\$’000</b>	2016 US\$’000
CNMC	<b>41</b>	41
Fellow subsidiaries	<b>5,645</b>	6,510
A subsidiary of a non-controlling shareholder of a subsidiary	<b>4,856</b>	6,898
	<b>10,542</b>	13,449

The above balances with related parties are unsecured, interest-free and are repayable on demand.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 21. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS (Continued)

The movements in the allowance for doubtful debts during the year are as follows:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
At beginning of the reporting period	–	–
Impairment loss recognised on receivables	7,860	–
At end of the reporting period	7,860	–

### 22. BANK DEPOSITS AND RESTRICTED BANK BALANCES/BANK BALANCES AND CASH

#### a. Restricted bank balances

The Group's restricted bank balances are analysed as follows:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Non-current restricted bank deposits for the banks' letters of guarantee to secure future restoration costs as required by the government of Zambia ( <i>note 29</i> )	6,027	6,027
Current restricted bank deposits for:		
– Custom clearance	460	460
– Issuing letters of credit	807	640
	1,267	1,100
	7,294	7,127

The restricted bank balances carry interest at rates ranging from 0.1% to 0.5% (2016: 0.1% to 1.2%) per annum.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 22. BANK DEPOSITS AND RESTRICTED BANK BALANCES/BANK BALANCES AND CASH (Continued)

#### b. Bank deposits

The bank deposits of US\$45,000,000 (2016: US\$38,000,000) are with initial maturity of more than three months and carry interest at rates ranging from 1.9% to 3.0% (2016: 1.4% to 3.0%) per annum.

#### c. Bank balances and cash

Bank balances carry interest at market rates ranging from 0.1% to 0.3% (2016: 0.1% to 0.3%) per annum.

### 23. TRADE PAYABLES

The following is an aged analysis of trade payables, presented based on the invoice dates:

	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
0 to 30 days	<b>141,273</b>	51,855
31 to 90 days	<b>20,166</b>	58,740
91 to 180 days	<b>34,689</b>	79,213
181 to 365 days	<b>15,548</b>	53,360
1–2 years	<b>25,187</b>	21,263
Over 2 years	<b>28,802</b>	11,554
	<b>265,665</b>	275,985

The average credit period on purchases of certain goods is within 3 months and most payables are paid within the credit time frame.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 23. TRADE PAYABLES (Continued)

The Group purchases copper concentrates under provisional pricing arrangements where final grades of copper, gold and silver in copper products are agreed based on third-party examination and final prices are set at the quotation period based on prevailing spot prices. According to industry practice, the purchase terms of metal in these contracts contain provisional pricing arrangements pursuant to which the purchase prices for metal in concentrate are based on prevailing spot prices at a specified future period after shipment by suppliers (the “quotation period”). Adjustments to the purchase price occur based on movements in quoted market prices up to the date of final settlement. The period between provisional invoicing and final settlement is within three months. Accordingly, for accounting purposes, the provisional price arrangement is required to be separated from the host contract for purchase of metal in concentrate once the significant risks and rewards of ownership has been transferred to the Group. The host contract is the purchase of metal in concentrate and the embedded derivative is the forward contract for which the provisional price is subsequently adjusted. The adjustment is re-estimated in trade payables on the consolidated financial position and changes in fair value are recognised in profit or loss. In all cases, fair value is estimated by reference to forward market price.

Provisionally priced purchase arrangements have the character of commodity derivatives which are included in the Group’s trade payables amounting to US\$647,000 (a liability) as at 31 December 2017 (2016: US\$21,261,000 (a liability)) and changes in fair value are recognised in profit or loss.

Included in the Group’s trade payables are balances with the following related parties:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
Fellow subsidiaries	<b>36,268</b>	63,453

The above balances with related parties are unsecured, interest-free and are repayable within the three months.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 24. OTHER PAYABLES AND ACCRUED EXPENSES

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Receipts in advance from customers	20,899	2,276
Payables for properties, plant and equipment	14,361	4,470
Dividend payable to a non-controlling shareholder of a subsidiary	245	–
Other tax payables	3,692	1,981
Interest payables	1,262	990
Accrued and other payables	21,747	24,168
	<b>62,206</b>	33,885

Included in the Group's other payables and accrued expenses are balances with the following related parties:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
CNMC	1,898	1,600
Fellow subsidiaries	3,653	3,610
A non-controlling shareholder of a subsidiary	301	1,729
An associate	2,143	2,143
	<b>7,995</b>	9,082

The above balances with related parties are unsecured, interest-free and are repayable on demand.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 25. BANK AND OTHER BORROWINGS

	<i>Notes</i>	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Bank loans, unsecured	a	<b>1,020,660</b>	857,410
Loan from CNMC, unsecured	b	<b>1,077</b>	1,077
Loan from a fellow subsidiary, unsecured	c	<b>247,000</b>	300,000
		<b>1,268,737</b>	1,158,487
Carrying amount repayable:*			
Within one year		<b>455,225</b>	58,000
More than one year, but not exceeding two years		<b>426,339</b>	572,077
More than two years, but not exceeding five years		<b>387,173</b>	528,410
		<b>1,268,737</b>	1,158,487
Less: Amounts shown under current liabilities		<b>(455,225)</b>	(58,000)
Non-current portion		<b>813,512</b>	1,100,487

\* The amounts due are based on scheduled repayment dates set out in the loan agreements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 25. BANK AND OTHER BORROWINGS (Continued)

*Notes:*

- a. As at 31 December 2017, the unsecured bank loans comprised the following:
- Bank loans of US\$810,410,000 (2016: US\$627,410,000) with corporate guarantees issued by CNMC in favour of the relevant banks.
  - Bank loans of US\$80,000,000 (2016: US\$80,000,000) with joint corporate guarantees issued by both CNMC and a non-controlling shareholder of a subsidiary in favour of the relevant banks.
  - Unguaranteed bank loans of US\$130,250,000 (2016: US\$150,000,000).

The aforesaid bank loans as at 31 December 2017 bore interest at rates varied based on LIBOR ranging from 2.7% to 4.7% per annum (2016: 2.1% to 4.2% per annum).

- b. The loan from CNMC of US\$1,077,000 bore interest at rate varies based on benchmark interest rate published by The People's Bank of China of 3.3% per annum (2016: 3.3% per annum).
- c. The loan from a fellow subsidiary of US\$247,000,000 bore interest at a fixed rate of 4.0% per annum (2016: US\$300,000,000).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 26. DERIVATIVES

	2017 US\$'000	2016 US\$'000
Copper futures contracts, at fair value	(4,419)	(8,233)

Details of the above futures contracts are analysed as follows:

	At December 31	
	2017	2016
Number of contracts		
– Sell	270	571
Notional amount (in US\$'000)	44,242	70,698
Exercise price (in US\$)	7,208–7,219	5,524–5,531
Maturity date	4 January 2018–16 January 2018	11 January 2017–10 February 2017

During the year, the Group entered into certain copper futures contracts to hedge its risk associated with the prices of its blister copper sold and recognised a loss of US\$11,880,000 (2016: a loss of US\$6,291,000) arising on change in fair value of derivatives in the profit or loss.

#### Financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

The disclosures set out in the tables below include financial assets and financial liabilities that are subject to an enforceable master netting arrangement or similar agreement that covers similar financial instruments, irrespective of whether they are offset in the consolidated statement of financial position.

The Group recognised for the derivative financial assets and liabilities in respect of copper futures contracts do not meet the criteria for offsetting in the Group's statement of financial position since the right of set-off of the recognised amounts is only enforceable upon an event of default.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 26. DERIVATIVES (Continued)

#### Financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (Continued)

*Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements*

	Gross amounts of recognised financial assets		Gross amounts of recognised financial liabilities set off in the consolidated statement of financial position		Net amounts of financial assets presented in the consolidated statement of financial position	
	at 31 December		at 31 December		at 31 December	
	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$000	2017 US\$'000	2016 US\$'000
Deposits in futures margin accounts	14,220	29,915	-	-	14,220	29,915

*Net financial assets subject to enforceable master netting arrangements and similar agreements, by counterparty*

	Net amount of financial assets presented in the consolidated statement of financial position		Related amounts not set off in the consolidated statement of the financial position				Net amount	
	at 31 December		Financial derivative liability		Cash collateral pledged		at 31 December	
	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$000	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000
Counterparty A	14,220	29,915	(4,419)	(8,233)	-	-	9,801	21,682



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 26. DERIVATIVES (Continued)

### Financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (Continued)

*Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements*

	Gross amounts recognised of financial liabilities		Gross amounts of recognised financial assets set off in the consolidated statement of financial position		Net amounts of financial liabilities presented in the consolidated statement of financial position	
	at 31 December		at 31 December		at 31 December	
	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000
Derivatives in respect of copper futures contracts	(4,419)	(8,233)	-	-	(4,419)	(8,233)

*Net financial liabilities subject to enforceable master netting arrangements and similar agreements, by counterparty*

	Net amount of financial liabilities presented in the consolidated statement of financial position		Related amounts not set off in the consolidated statement of the financial position					
	at 31 December		Financial derivative assets		Cash collateral pledged		Net amount	
	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000	2017 US\$'000	2016 US\$'000
Counterparty A	(4,419)	(8,233)	-	-	4,419	8,233	-	-

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 27. SHARE CAPITAL

	Number of shares		Share capital	
	2017 '000	2016 '000	2017 HK\$'000	2016 HK\$'000
Issued and fully paid: At beginning and end of the year ordinary shares with no par value	<b>3,489,036</b>	3,489,036	<b>4,775,319</b>	4,775,319
			<b>US\$'000</b>	US\$'000
Presented in the consolidated financial statements as			<b>613,233</b>	613,233

## 28. DEFERRED INCOME

	2017 US\$'000	2016 US\$'000
Balance at beginning of year	<b>15,818</b>	18,547
Additions to the grants during the year	<b>1,261</b>	–
Recognised in profit or loss during the year	<b>(880)</b>	(2,729)
Balance at end of year	<b>16,199</b>	15,818

The above balances represented grants from Ministry of Finance of the PRC to subsidise the Group's capital expenditure and interest incurred in its copper mines development activities in Zambia which were capitalised under mining properties. These grants are recognised in profit or loss on a systematic and rational basis over the useful lives of the related assets.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 29. PROVISION FOR RESTORATION, REHABILITATION AND ENVIRONMENTAL COSTS

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Balance at beginning of year	19,863	20,544
Provisions reversed	(1,318)	(1,205)
Unwinding of discount ( <i>note 8</i> )	415	524
Balance at end of year	<b>18,960</b>	19,863

The Group's provision for restoration, rehabilitation and environmental costs is related to the Group's subsidiaries in Zambia which are involved in mining, leaching and smelting operations. The provision represents the accrued cost required to provide adequate restoration and rehabilitation measured by qualified professionals in Zambia, as discounted at rates ranging from 3.2% to 4.5% per annum (2016: 2.4% to 3.2% per annum), upon the completion of their operations. These amounts will be settled when rehabilitation is undertaken, generally at the end of a project life, which ranges from 4 to 36 years.

The Group is required, under the prevailing regulations, to make an annual contribution over a period of five years beginning the year of prospecting, exploration or mining operations are commissioned, at 5% to 20% of the estimated restoration costs into an Environmental Protection Fund which is administrated by the Government of the Republic of Zambia (note 21). The regulations also require that the balance of the estimated restoration costs be secured using letters of guarantee. All companies in the Group have provided the relevant letters of guarantee as at 31 December 2017 and 2016 (note 22 (a)), except for SML, which has not received a demand notice at the date of issuance of these consolidated financial statements.

The Directors opined that adequate provision has been made at the end of each reporting period.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 30. DEFERRED TAXATION

	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
Deferred tax assets	<b>52,456</b>	59,702
Deferred tax liabilities	<b>(53,997)</b>	(46,499)
	<b>(1,541)</b>	13,203

The following are the major deferred tax balances recognised and movements thereon during the current and prior years:

	<b>Property, plant and equipment</b> <i>US\$'000</i>	<b>Undistributable profits of subsidiaries</b> <i>US\$'000</i>	<b>Tax losses</b> <i>US\$'000</i>	<b>Total</b> <i>US\$'000</i>
Balance at 1 January 2016	(83,389)	(20,311)	119,443	15,743
Charge to profit or loss	7,816	(8,604)	(1,752)	(2,540)
Balance at 31 December 2016	(75,573)	(28,915)	117,691	13,203
Charge to profit or loss	7,144	(4,584)	(17,304)	(14,744)
<b>Balance at 31 December 2017</b>	<b>(68,429)</b>	<b>(33,499)</b>	<b>100,387</b>	<b>(1,541)</b>

As at 31 December 2017, the Group has unused tax losses of US\$335,822,000 (2016: US\$405,589,000) in respect of the subsidiaries in Zambia and DRC available for offset against future profits. Deferred tax assets in respect of tax losses of US\$335,822,000 (2016: US\$391,780,000) have been recognised in respect of all the losses of these subsidiaries in Zambia and DRC. As at 31 December 2016, no deferred tax asset has been recognised in respect of the remaining US\$13,809,000 due to the unpredictability of future profit streams. Subject to regulations in Zambia and DRC, the above tax losses of these subsidiaries are available to be carried forward up to a maximum of ten years from the year in which they are incurred for set off against future taxable profits from the same source of those subsidiaries.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 31. OPERATING LEASE – THE GROUP AS LESSEE

At the end of the reporting period, the Group had commitments for future minimum lease payments under a non-cancellable operating lease in respect of buildings and properties of CNMC and a fellow subsidiary in the PRC and Zambia for general and ancillary purposes which fall due as follows:

	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Within one year	<b>5,692</b>	2,743
In the second to fifth years inclusive	<b>17,849</b>	–
	<b>23,541</b>	2,743

### 32. CAPITAL COMMITMENTS

	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Capital expenditure contracted for but not provided for in respect of:		
– acquisition of property, plant and equipment	<b>214,455</b>	251,091

### 33. CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximising the return to stakeholders through the optimisation of the debt and equity balance. The Group's overall strategy remains unchanged from prior year.

The capital structure of the Group consists of net debt (which includes bank and other borrowings, bank deposits, restricted bank balances, bank balances and cash) and equity attributable to owners of the Company (comprising capital, share premium, other reserves and retained profits).

The Group is not subject to any externally imposed capital requirements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 33. CAPITAL MANAGEMENT (Continued)

### Gearing ratio

The Group's management committee reviews the capital structure on a regular basis. As part of this review, the committee considers the cost of capital and the risks associated with each class of capital.

The gearing ratio of the Group at the end of the reporting period was as follows:

	<i>Notes</i>	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Debts	(a)	<b>1,268,737</b>	1,158,487
Less:			
Bank deposits, restricted bank balances, bank balances and cash		<b>(907,278)</b>	(730,454)
Net debt		<b>361,459</b>	428,033
Equity	(b)	<b>787,075</b>	644,647
Net debt to equity ratio		<b>45.9%</b>	66.4%

*Notes:*

- (a) Debt comprises non-current and current bank and other borrowings as detailed in note 25.
- (b) Equity includes capital and retained profits attributable to owners of the Company.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS

### Categories of financial instruments

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
Financial assets		
Loans and receivables	<b>1,160,375</b>	964,217
Derivatives	<b>1,556</b>	27,024
Financial liabilities		
Amortised costs	<b>1,563,437</b>	1,432,770
Derivatives	<b>5,066</b>	29,494

### Financial risk management objectives and policies

The Group's major financial instruments include trade and other receivables, bank deposits, restricted bank balances, bank balances and cash, trade and other payables, bank and other borrowings and derivatives. Details of these financial instruments are disclosed in the respective notes. The risks associated with these financial instruments include market risk (currency risk, interest rate risk and price risk), credit risk and liquidity risk. The policies on how to mitigate these risks are set out below. The Directors manage and monitor these exposures to ensure appropriate measures are implemented on a timely and effective manner.

#### Market risk

##### (i) Currency risk

The Group's significant operations are in Zambia and DRC and most of its sales and purchases were denominated in US\$, the functional currency of the companies comprising the Group, while certain sales and purchases were settled in currencies (mainly Zambia Kwacha ("ZMK"), Congolese Franc ("CDF") and Renminbi ("RMB")) other than the functional currency of these group entities that expose the Group to foreign currency risk.

The carrying amounts of the Group's ZMK, CDF and RMB denominated monetary assets (excluding input VAT receivables) and liabilities (excluding tax payables) which expose the Group to foreign currency risk are as follows:

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
ZMK denominated monetary assets	<b>12,286</b>	7,527
ZMK denominated monetary liabilities	<b>(1,724)</b>	(4,243)
CDF denominated monetary assets	<b>804</b>	636
CDF denominated monetary liabilities	<b>(13)</b>	(24)
RMB denominated monetary assets	<b>12,246</b>	13,744
RMB denominated monetary liabilities	<b>(1,254)</b>	(3,444)

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### (i) Currency risk (Continued)

Save as disclosed above of the currency risk of financial instruments, the Group's input VAT receivables and tax payables are mainly settled the currency of ZMK and CDF which exposed the Group to foreign currency risk.

The Group currently does not have a foreign exchange hedging policy. However, the management of the Group monitors foreign exchange exposure and will consider hedging significant foreign exchange exposure should the need arises.

The Group is mainly exposed to the currency of ZMK, CDF and RMB.

The sensitivity analysis below has been determined based on the exposure to exchange rates of ZMK, CDF and RMB against US\$. For a 5%, 10%, 15% weakening of ZMK and RMB against US\$ and all other variables being held constant, there would have no impact on the Group's total equity apart from the retained profits and the effect on the Group's profit after tax are as follows:

	2017 US\$'000	2016 US\$'000
	Increase/(Decrease)	
<b>ZMK against US\$</b>		
Weakening		
– 5%	(376)	(131)
– 10%	(752)	(262)
– 15%	(1,128)	(393)
<b>CDF against US\$</b>		
Weakening		
– 5%	(28)	(22)
– 10%	(56)	(44)
– 15%	(84)	(66)
<b>RMB against US\$</b>		
Weakening		
– 5%	(440)	(437)
– 10%	(880)	(875)
– 15%	(1,320)	(1,312)

For a 5%, 10%, 15% strengthening of ZMK, CDF and RMB against US\$, there would be an equal and opposite impact on the profit after tax.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### (ii) Interest rate risk management

Apart from the fixed rate loan from a fellow subsidiary that expose the Group to fair value interest rate risk, the Group is also exposed to cash flow interest rate risk through the impact of rate changes on interest-bearing financial assets and liabilities, mainly interest-bearing restricted bank balances, bank deposits and balances, and bank and other borrowings at variable interest rates. The Group currently does not have an interest rate hedging policy. However, the Directors will consider hedging significant interest rate risk should the need arise.

The sensitivity analysis below has been determined based on the exposure to variable rate bank and other borrowings at the end of each reporting period and assumed that the amount of liabilities outstanding at the end of each reporting period was outstanding for the whole year. The effect on restricted bank balances, bank deposits and bank balances, however, had been ignored as most of them bore interest at minimal rate at the end of each reporting period.

If interest rates on bank and other borrowings had been 100 basis points (“BPs”) change and all other variables were held constant, there would have no impact on the Group’s total equity apart from retained profits and the potential effect on profit after tax is as follows:

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
(Decrease) increase in profit for the year		
– as the result of increase in interest rate	<b>(4,837)</b>	(5,573)
– as the result of decrease in interest rate	<b>4,837</b>	5,573

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

##### (iii) Commodity price risk

The Group's commodity price risk is mainly the exposure to fluctuations in the prevailing market price of copper which are the major commodities purchased, produced and sold by the Group. To minimise this risk, the Group enters into copper futures contracts and provisional price arrangement to manage the Group's exposure in relation to forecasted sales of copper products, forecasted purchases of copper concentrates, inventories and firm commitments to sell the Group's copper products.

Financial assets and liabilities of the Group whose fair value change in line with the fluctuations in the prevailing market price of copper mainly comprise copper futures contracts and provisional price arrangements. If all prices of copper futures had been increased by 10% and all other variables were held constant, there would have no impact on the Group's total equity apart from retained profits and the potential effect on profit after tax is as follows:

	<b>2017</b> <b>US\$'000</b>	2016 <i>US\$'000</i>
Increase in profit after tax for the year	<b>12,016</b>	14,097

There would be an equal and opposite impact on the profit after tax for the year where there had been 10% decrease in all prices of copper futures.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### *Credit risk*

The Group's maximum exposure to credit risk in the event of the counterparties failure to perform their obligations at the end of each reporting period in relation to each class of recognised financial assets is the carrying amount of those assets stated in the consolidated statement of financial position.

The Group's credit risk is primarily attributable to its trade and other receivables, and finance lease receivables. In order to minimise the credit risk, the Group's management continuously monitors the level of exposure to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual debt at the end of each reporting period to ensure that adequate impairment losses are made for irrecoverable amounts. In this regard, the Directors consider that the Group's credit risk is significantly reduced.

The credit risk on restricted bank balances and bank balances is minimal as such amounts are placed in banks with good reputation.

The Group has concentration of credit risk because 91% (2016: 85%) of the trade receivables was due from the Group's two (2016: two) largest customers.

Other than the above, the Group does not have significant concentration of credit risk.

#### *Liquidity risk*

The Directors have built an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity requirements. The Group manages liquidity risk by maintaining banking facilities and by continuously monitoring forecast and actual cash flows and matching the maturity profiles of its financial assets and liabilities.

The following table details the Group's remaining contractual maturity for its financial liabilities. The table has been drawn up to reflect the undiscounted cash flows of non-derivative financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows. The interest payments are computed using contractual rates or if variable, based on the prevailing market rate at the end of each reporting period. For derivatives settled on a net basis, the table has been drawn up based on undiscounted contractual net cash flows.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Liquidity risk (Continued)

	Weighted average interest rate %	On demand or less than 6 months US\$'000	Over 6 months but not more than 1 year US\$'000	1 to 5 years US\$'000	More than 5 years US\$'000	Total undiscounted cash flows US\$'000	Carrying amounts US\$'000
<b>31 December 2017</b>							
<b>Non-derivative financial liabilities</b>							
Trade and other payables		293,438	-	-	-	293,438	293,438
Other borrowings							
– fixed rate	4.0	4,948	251,940	-	-	256,888	247,008
– variable rate	3.3	98	1,078	-	-	1,176	1,157
Bank borrowings at variable rate	3.8	118,459	125,331	861,730	-	1,105,520	1,021,834
		416,943	378,349	861,730	-	1,657,022	1,563,437
<b>Derivative financial liabilities – net settlement</b>							
Copper future contracts		4,419	-	-	-	4,419	4,419
Embedded derivatives		647	-	-	-	647	647
		5,066	-	-	-	5,066	5,066

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 34. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Liquidity risk (Continued)

	Weighted average interest rate %	On demand or less than 6 months US\$'000	Over 6 months but not more than 1 year US\$'000	1 to 5 years US\$'000	More than 5 years US\$'000	Total undiscounted cash flows US\$'000	Carrying amounts US\$'000
<b>31 December 2016</b>							
<b>Non-derivative financial liabilities</b>							
Trade and other payables		273,293	-	-	-	273,293	273,293
Other borrowings							
– fixed rate	4.0	6,325	6,000	312,000	-	324,325	300,325
– variable rate	3.3	24	18	1,096	-	1,138	1,083
Bank borrowings at variable rate	3.2	18,254	67,059	835,602	-	920,915	858,069
		297,896	73,077	1,148,698	-	1,519,671	1,432,770
<b>Derivative financial liabilities – net settlement</b>							
Copper future contracts		8,233	-	-	-	8,233	8,233
Embedded derivatives		21,261	-	-	-	21,261	21,261
		29,494	-	-	-	29,494	29,494

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 34. FINANCIAL INSTRUMENTS (Continued)

#### Fair value of financial instruments

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

	Level 1 US\$'000	Level 2 US\$'000	Level 3 US\$'000	Total US\$'000
<b>31 December 2017</b>				
Copper future contracts ( <i>note</i> )	<b>(4,419)</b>	–	–	<b>(4,419)</b>
Embedded derivatives arising from sales under provisional pricing arrangement ( <i>note</i> )	–	<b>1,556</b>	–	<b>1,556</b>
Embedded derivatives arising from purchases under provisional pricing arrangement ( <i>note</i> )	–	<b>(647)</b>	–	<b>(647)</b>
<b>31 December 2016</b>				
Copper future contracts ( <i>note</i> )	(8,233)	–	–	(8,233)
Embedded derivatives arising from sales under provisional pricing arrangement ( <i>note</i> )	–	27,024	–	27,024
Embedded derivatives arising from purchases under provisional pricing arrangement ( <i>note</i> )	–	(21,261)	–	(21,261)

Notes:

- a. Derived from quoted prices in an active market.
- b. Calculated based on the quoted prices in an active market and the estimated grades of copper, gold and silver in Group's copper products.

There were no transfers between Level 1 and 2 in the year.

Except as detailed above, the Directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost recognised in the consolidated financial statements approximate their fair values.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 35. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were for future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	<b>Borrowings</b>	<b>Interests</b>	<b>Dividends</b>	<b>Total</b>
	<i>US\$'000</i>	<i>US\$'000</i>	<i>US\$'000</i>	<i>US\$'000</i>
	<i>note 25</i>	<i>note 24</i>	<i>note 24</i>	
<b>At 1 January 2017</b>	<b>1,158,487</b>	<b>990</b>	<b>–</b>	<b>1,159,477</b>
Financing cash flows	<b>110,250</b>	<b>(35,831)</b>	<b>(49,801)</b>	<b>24,618</b>
Interest expenses		<b>36,103</b>	<b>–</b>	<b>36,103</b>
Dividends declared	<b>–</b>	<b>–</b>	<b>50,046</b>	<b>50,046</b>
<b>At 31 December 2017</b>	<b>1,268,737</b>	<b>1,262</b>	<b>245</b>	<b>1,270,244</b>

### 36. RELATED PARTY TRANSACTIONS

The Company is ultimately controlled by the PRC government and the Group operates in an economic environment currently predominated by entities controlled, jointly controlled or significantly influenced by the PRC government ("government-related entities").

Other than the transactions and balances with related parties disclosed elsewhere in these consolidated financial statements, during the year, the Group had the following significant transactions with related parties:

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 36. RELATED PARTY TRANSACTIONS (Continued)

### (1) Transactions with government-related entities

#### (a) Transactions with CNMC and its subsidiaries

	Notes	Related parties	2017 US\$'000	2016 US\$'000
Sales of:				
– Blister copper	(i)	Fellow subsidiaries	<b>661,830</b>	669,567
– Copper cathodes	(i)	Fellow subsidiaries	<b>297,420</b>	221,534
– Other materials	(i)	Fellow subsidiary	<b>3,137</b>	401
Gain on change in fair value of embedded derivatives arising from sales under provisional pricing arrangements	(i)	Fellow subsidiaries	<b>55,558</b>	36,406
Services income	(i)	A fellow subsidiary	<b>46</b>	47
Finance income earned under finance leases	(i), (ii)	Fellow subsidiaries	<b>189</b>	1,229
Purchases of:				
– Plant and equipment	(i)	Fellow subsidiaries	<b>(34,110)</b>	(15,779)
– Materials	(i)	Fellow subsidiaries	<b>(130,082)</b>	(85,375)
– Electricity	(i)	A fellow subsidiary	<b>(17,413)</b>	(15,917)
– Services	(i)	Fellow subsidiaries	<b>(81,087)</b>	(49,719)
– Freight and transportation	(i)	Fellow subsidiaries	<b>(15,915)</b>	(15,621)
Loss on change in fair value of embedded derivatives arising from purchase under provisional pricing arrangements	(i)	A fellow subsidiary	<b>(7,457)</b>	(6,413)
Rental expenses	(i)	Fellow subsidiaries	<b>(6,122)</b>	(6,073)
Guarantee fees	(i)	CNMC	<b>(1,643)</b>	(1,652)
Interest expenses	(i)	Fellow subsidiaries	<b>(9,745)</b>	(7,115)
	(i)	CNMC	<b>(31)</b>	(36)



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 36. RELATED PARTY TRANSACTIONS (Continued)

### (1) Transactions with government-related entities (Continued)

#### (a) Transactions with CNMC and its subsidiaries (Continued)

Notes:

- (i) These transactions were conducted in accordance with terms of the relevant agreements.
- (ii) The finance income earned under finance leases arose from the finance leases to fellow subsidiaries

In addition to the above, the Group also had the following transactions with CNMC and its subsidiaries:

- CNMC provided guarantees to banks, at nil consideration, for granting unsecured loans to the Group. Further details are set out in note 25.
- On 1 July 2009, a subsidiary of the Company, CCS, entered into an agreement with Fifteen MCC Africa Construction & Trade Ltd. ("Fifteen MCC Africa"), a fellow subsidiary, (the "Fifteen MCC Africa Agreement") pursuant to which that subsidiary agreed to provide certain living quarters to Fifteen MCC Africa on a free of charge basis. Fifteen MCC Africa shall pay for the use of water and electricity and other expenses such as repair and any applicable tax in Zambia. The Fifteen MCC Africa Agreement shall remain for as long as CCS is in existence. As Fifteen MCC Africa provides construction as well as equipment repair and maintenance services to CCS on an ongoing basis, it requires accommodation for its staff based in Zambia.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 36. RELATED PARTY TRANSACTIONS (Continued)

### (1) Transactions with government-related entities (Continued)

#### (b) Transactions with other government-related entities

	Notes	Related parties	2017 US\$'000	2016 US\$'000
Sales of:				
– Blister copper	(i)	Subsidiaries of a non-controlling shareholder of a subsidiary	325,216	173,054
Gain on change in fair value of embedded derivatives arising from sales under provisional pricing agreements	(i)	Subsidiaries of a non-controlling shareholder of a subsidiary	17,819	10,879
Interest expense	(ii)	A non-controlling shareholder of a subsidiary	-	(411)

#### Notes:

- (i) These transactions were conducted in accordance with terms of the relevant agreements.
- (ii) The interest expense arose from unsecured loan from a non-controlling shareholder with significant influence over a subsidiary of the Group.

In addition to the above, the Group has entered into various transactions, amongst others, including deposit placements, borrowings and other bank facilities, with certain banks and financial institutions which are the PRC government-related entities in its ordinary course of business. In view of the nature of these transactions, the Directors are of the opinion that separate disclosures would not be meaningful.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 36. RELATED PARTY TRANSACTIONS (Continued)

#### (2) Transactions with a non-controlling shareholder of a subsidiary

	<i>Note</i>	<b>Related parties</b>	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
Purchases of:				
– Materials	(a)	A subsidiary of a non-controlling shareholder of a subsidiary of the Group	<b>(23,090)</b>	(9,927)

*Note:*

(a) These transactions were conducted in accordance with terms of the relevant agreements.

#### (3) The details of remuneration of key management personnel, represents emoluments of the Directors, are set out in note 13.

### 37. RETIREMENT BENEFIT SCHEMES

The local employees of the Group's subsidiaries in Zambia and DRC are members of the state-managed retirement benefits scheme operated by the Zambia government and DRC government, respectively. The subsidiaries are required to contribute a certain percentage of their payroll to the retirement benefits scheme to fund the benefits. Besides, certain employees of the Group are also members of the state-managed retirement benefits scheme operated by the PRC government. The Group also contributes a certain percentage of their payroll to the retirement benefits scheme to fund the benefits.

The only obligation of the Group with respect to the aforesaid retirement benefits schemes is to make the required contributions under the schemes.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 38. CONTINGENT LIABILITIES

In May 2017, Zambia Revenue Authority (the “ZRA”) had performed a tax audit on CCS’s VAT from February 2015 to December 2016 and required CCS to provide certain documents for the incentives of zero-rated output VAT arising from the blister copper exportations according to the requirements of “The Value Added Tax (General) Amendment (NO. 2) Rule 18, 2015” (“VAT Rule 18”) effective from 23 February 2015. According to the VAT Rule 18, to enjoy a zero-rated output VAT, CCS should produce (a) copies of export documents, (b) copies of import documents for the goods, bearing a certificate of importation into the country of the destination provided by the customs authority of the country of destination or copies of transit documents for goods bearing a certificate of transit provided by the customs authority of the country of transit, (c) tax invoice for the goods exported and (d) documentary evidence proving that payment for the goods had been made in the exporter’s bank account in Zambia.

Although CCS has already provided the required information to ZRA, ZRA issued a letter dated 5 January 2018 with the VAT assessment amounting to ZMK559,115,000 (equivalent to approximately US\$55,336,000, translated at the exchange rate prevailing at the issue date of the assessment letter) to CCS. ZRA considered that the import documents provided by CCS for the blister copper exported from February 2015 to June 2015 were not sufficient. CCS resubmitted additional information to ZRA on 15 February 2018 and received a letter dated 7 March 2018 from ZRA stating that no additional information will be required from CCS and the VAT assessment will not be enforced until the final decision is made. Up to the date of this report, the case is still pending for the final decision of ZRA. In the opinion of the Directors, it is not probable that CCS will need to pay the VAT assessment as the documents provided to ZRA could fulfil the requirements of VAT Rule 18, therefore no provision for the VAT assessment is required. Other than the output VAT incentives from February 2015 to June 2015, CCS was not queried about the output VAT incentives for the blister copper exportations by ZRA for other periods.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY

Details of the Group's subsidiaries at the end of the reporting period are set out below:

Name of company	Place/Country of operations and date of incorporation	Issued and fully paid-up ordinary share capital	Equity interest attributable to the Company as at 31 December		Principal activities
			2017 %	2016 %	
CNMH <i>(Note (a))</i>	Ireland 23 September 2011	Euro171,152,002	<b>100</b>	100	Investment holding
CNMHK <i>(Note (a))</i>	Hong Kong 6 October 2015	HK\$10,000	<b>70</b>	70	Investment holding
CNMHKI <i>(Note (a))</i>	Hong Kong 2 December 2016	US\$20,000	<b>100</b>	100	Investment holding
NFCA <i>(Note (b))</i>	Zambia 5 March 1998	US\$9,000,001	<b>85</b>	85	Exploration and mining of copper and production of copper concentrates
CCS <i>(Note (b))</i>	Zambia 19 July 2006	US\$2,000	<b>60</b>	60	Production and sale of blister copper and sulfuric acid
SML <i>(Notes (b), (c))</i>	Zambia 3 December 2004	US\$1,000	<b>67.75</b>	67.75	Production and sale of copper cathodes
Luanshya <i>(Note (b))</i>	Zambia 10 July 2003	US\$10,000,001	<b>80</b>	80	Exploration and mining of copper and production of copper concentrates and copper cathode
Huachin Metal Leach SA <i>(Notes (b), (g))</i>	DRC 17 December 2010	US\$10,000,000	<b>43.75</b>	43.75	Production and sale of copper cathodes

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

## 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY (Continued)

Name of company	Place/Country of operations and date of incorporation	Issued and fully paid-up ordinary share capital	Equity interest attributable to the Company as at 31 December		Principal activities
			2017 %	2016 %	
CNMC Huachin Mabende Mining SA ("CHM") (Notes (b), (g))	DRC 5 October 2012	US\$9,000,000	<b>42</b>	42	Production and sale of copper cathodes
Green Home Farm Limited ("Green Home") (Notes (b), (d))	Zambia 12 July 2012	ZMK5,000,000	<b>85</b>	85	Farming
CCS Chinda Trade & Investment SARL ("CCS Chinda") (Note (e))	DRC 10 April 2015	US\$2,000	<b>60</b>	60	Sale of sulfuric acid
SBR (Note (f))	DRC 23 May 2014	CDF717,005,314	<b>39.9</b>	39.9	Exploration and mining of copper
Lualaba Copper Smelter SAS ("LCS") (Note (h))	DRC 21 June 2017	US\$2,000	<b>60</b>		– Production and sale of blister copper and sulfuric acid
Kambove Mining SAS ("KM") (Note (h))	DRC 8 June 2017	CDF14,000	<b>55</b>		– Exploration and mining of copper and production of copper concentrates

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY (Continued)

*Notes:*

- (a) The ordinary share capital of these companies is directly held by the Company.
- (b) The ordinary share capital of these companies is indirectly held by the Company.
- (c) 55% and 15% of the issued and paid-up ordinary share capital of SML are directly held by CNMH and NFCA, respectively.
- (d) Green Home is a wholly-owned subsidiary of NFCA.
- (e) CCS Chinda is a wholly-owned subsidiary of CCS.
- (f) CHM acquired SBR on 20 November 2015 and 95% of the issued and paid-up ordinary share capital of SBR is directly held and controlled by CHM.
- (g) 62.5% and 60% of the issued and paid-up ordinary share capital of Huachin Metal Leach SA and CHM, respectively, are directly held and controlled by CNMHK.
- (h) 60% and 55% of the issued and paid-up ordinary share capital of LCS and KM, respectively, are directly held and controlled by CNMHKI.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY (Continued)

#### Details of non-wholly owned subsidiaries that have material non-controlling interests:

The table below shows details of non-wholly-owned subsidiaries of the Group that have material non-controlling interests:

Name of company	Place/Country of operations and Principal place of activities	Proportion of ownership interests and voting rights held interests by non-controlling interests		Profit (loss) allocated to non-controlling interests		Accumulated non-controlling interests	
		2017	2016	2017	2016	2017	2016
		%	%				
CCS	Zambia	40	40	42,522	27,748	165,501	170,979
CHM	DRC	58	58	26,845	10,968	50,300	23,456
Subsidiaries with individually immaterial non-controlling interests						37,208	4,564
						<b>253,009</b>	198,999

Summarised financial information in respect of each of the Group's subsidiaries that has material non-controlling interests is set out below. The summarised financial information below represents amounts before intragroup eliminations.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY (Continued)

<b>CCS</b>	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
Current assets	<b>610,297</b>	656,434
Non-current assets	<b>192,718</b>	201,804
Current liabilities	<b>(268,184)</b>	(236,065)
Non-current liabilities	<b>(121,076)</b>	(194,725)
Equity attributable to owners of the Company	<b>248,254</b>	256,469
Non-controlling interests	<b>165,501</b>	170,979
Revenue	<b>1,427,239</b>	1,040,129
Expenses	<b>(1,320,932)</b>	(970,759)
Profit and total comprehensive income for the year	<b>106,307</b>	69,370
Profit and total comprehensive income attributable to owners of the Company	<b>63,785</b>	41,622
Profit and total comprehensive income attributable to the non-controlling interests	<b>42,522</b>	27,748
Dividends paid to the non-controlling interests	<b>48,000</b>	–
Net cash inflow from operating activities	<b>31,873</b>	23,699
Net cash outflow from investing activities	<b>(11,500)</b>	(18,752)
Net cash outflow from financing activities	<b>(143,000)</b>	(26,000)
Effect of foreign exchange rate changes	<b>615</b>	(287)
Net cash outflow	<b>(122,012)</b>	(21,340)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 39. PARTICULARS OF SUBSIDIARIES OF THE COMPANY (Continued)

<b>CHM</b>	<b>2017</b> <i>US\$'000</i>	2016 <i>US\$'000</i>
Current assets	<b>90,891</b>	56,157
Non-current assets	<b>64,938</b>	83,172
Current liabilities	<b>(59,871)</b>	(89,164)
Non-current liabilities	<b>(9,234)</b>	(9,724)
Equity attributable to owners of the Company	<b>36,424</b>	16,985
Non-controlling interests	<b>50,300</b>	23,456
Revenue	<b>169,114</b>	117,881
Expenses	<b>(122,830)</b>	(98,970)
Profit and total comprehensive income for the year	<b>46,284</b>	18,911
Profit and total comprehensive income attributable to owners of the Company	<b>19,439</b>	7,943
Profit and total comprehensive income attributable to the non-controlling interests	<b>26,845</b>	10,968
Net cash inflow from operating activities	<b>18,590</b>	679
Net cash outflow from investing activities	<b>(3,640)</b>	(5,768)
Net cash (outflow) inflow from financing activities	<b>(20)</b>	20
Effect of foreign exchange rate changes	<b>32</b>	(59)
Net cash inflow (outflow)	<b>14,962</b>	(5,128)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 40. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>
<b>NON-CURRENT ASSETS</b>		
Equipment	35	18
Investment in subsidiaries	215,295	196,345
Receivable from a subsidiary	90,659	87,172
Loans to subsidiaries	162,250	85,000
	<b>468,239</b>	368,535
<b>CURRENT ASSETS</b>		
Other receivables	85	45
Loans to subsidiaries	14,000	162,000
Due from subsidiaries	10,811	9,787
Bank balances and cash	293,187	246,222
	<b>318,083</b>	418,054
<b>CURRENT LIABILITIES</b>		
Accrued expenses	1,277	428
Bank and other borrowings – due within one year	17,148	8,000
	<b>18,425</b>	8,428
<b>NET CURRENT ASSETS</b>	<b>299,658</b>	409,626
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>	<b>767,897</b>	778,161

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 40. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

	<b>2017</b> <b>US\$'000</b>	2016 US\$'000
<b>CAPITAL AND RESERVES</b>		
Share capital	<b>613,233</b>	613,233
Retained profits	<b>81,561</b>	72,928
<b>TOTAL EQUITY</b>	<b>694,794</b>	686,161
<b>NON-CURRENT LIABILITIES</b>		
Bank and other borrowings – due after one year	<b>73,103</b>	92,000
	<b>767,897</b>	778,161

The Company's statement of financial position was approved and authorised for issue by the board of directors on 29 March 2018 and is signed on its behalf by:

*DIRECTOR*

*DIRECTOR*

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER 2017

### 40. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

Movement in reserve of the Company

	<b>Retained profits</b> <i>US\$'000</i>
At 31 December 2015	53,807
Profit and total comprehensive income for the year	19,121
At 31 December 2016	72,928
Profit and total comprehensive income for the year	8,633
<b>At 31 December 2017</b>	<b>81,561</b>

# FIVE YEAR FINANCIAL SUMMARY

A summary of selected items of the results and of the assets, liabilities and non-controlling interests of the Group for the last five financial years, as extracted from the published audited financial statements and the Prospectus, is set out below.

## RESULTS

	Year ended 31 December				
	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>	2015 <i>US\$'000</i>	2014 <i>US\$'000</i>	2013 <i>US\$'000</i>
Revenue	<b>1,838,731</b>	1,313,291	1,189,164	1,941,973	1,744,023
Gross profit	<b>431,948</b>	199,913	125,609	302,587	274,257
Profit (loss) before tax	<b>319,227</b>	69,097	(351,561)	169,493	176,179
Net profit (loss)	<b>233,859</b>	45,447	(313,509)	229,643	127,360
Profit (loss) attributable to owners of the Company	<b>142,428</b>	11,832	(279,902)	146,821	67,257

## ASSETS, LIABILITIES, NON-CONTROLLING INTERESTS AND EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY

	At 31 December				
	2017 <i>US\$'000</i>	2016 <i>US\$'000</i>	2015 <i>US\$'000</i>	2014 <i>US\$'000</i>	2013 <i>US\$'000</i>
Non-current assets	<b>1,102,193</b>	998,240	994,191	1,246,060	1,228,863
Current assets	<b>1,701,004</b>	1,431,501	1,175,076	1,230,082	1,098,333
Total assets	<b>2,803,197</b>	2,429,741	2,169,267	2,476,142	2,327,196
Current liabilities	<b>860,445</b>	403,428	610,669	591,124	433,671
Net current assets	<b>840,559</b>	1,028,073	564,407	638,958	664,662
Non-current liabilities	<b>902,668</b>	1,182,667	771,127	762,164	973,335
Equity attributable to owners of the Company	<b>787,075</b>	644,647	632,815	922,591	782,749
Non-controlling interests	<b>253,009</b>	198,999	154,656	200,263	137,441

# DEFINITIONS

In this annual report, unless the context otherwise requires, the following words and expressions shall have the following meanings.

“AGM”	the annual general meeting of the Company
“Articles of Association” or “Articles”	the articles of association of the Company that were adopted on 27 April 2012
“associate(s)”	has the meaning ascribed thereto under the Listing Rules
“Audit Committee”	the audit committee of the Board
“Board of Directors” or “Board”	the board of directors of the Company
“BVI”	the British Virgin Islands
“CCS”	Chambishi Copper Smelter Limited (謙比希銅冶煉有限公司*), a company incorporated in Zambia on 19 July 2006 and a subsidiary of the Company
“CG Code” or “Corporate Governance Code”	code provisions set out in the Corporate Governance Code and Corporate Governance Report contained in Appendix 14 of the Listing Rules
“Chambishi Leach Plant”	the copper leaching plant located in the Copperbelt province in Zambia held by SML and where SML undertakes its leaching operations
“China” or “PRC”	the People’s Republic of China. For the purpose of this report and for geographical reference only and except where the context requires, references to “China” and the “PRC” do not include Taiwan, the Macau Special Administrative Region and Hong Kong Special Administrative Region
“CNMC”	China Nonferrous Metal Mining (Group) Co., Ltd* (中國有色礦業集團有限公司), a state-owned enterprise incorporated under the laws of the PRC in 1997 with operating history dating back to 1983, directly administered by SASAC, and the ultimate controlling shareholder of the Company

## DEFINITIONS (CONTINUED)

“CNMC Guarantee Fees Framework Agreement”	the framework agreement dated 18 November 2014 entered into between the Company and CNMC in relation to the reimbursement of guarantee fees paid by CNMC to third party financial institutions
“CNMC Huachin Mabende”	CNMC Huachin Mabende Mining SA (中色華鑫馬本德礦業股份有限公司*) (formerly known as “CNMC Mabende SPRL” (中色馬本德礦業有限公司*)), a joint venture established in the DRC on 9 November 2012 by SML and Huachin SPRL, an associate of the Group
“CNMD”	China Nonferrous Mining Development Limited (中色礦業發展有限公司*), an investment holding company incorporated under the laws of the BVI on 12 July 2011, a wholly-owned subsidiary of CNMC and the controlling shareholder of the Company
“CNMH”	China Nonferrous Mining Holdings Limited (中色礦業控股有限公司*), an investment holding company incorporated under the laws of the Republic of Ireland on 23 September 2011 and a wholly-owned subsidiary of the Company
“CNMHK”	China Nonferrous Mining Hong Kong Holdings Limited (中色礦業香港控股有限公司), an investment holding company incorporated in Hong Kong on 6 October 2015 with limited liability under the Companies Ordinance, a directly controlling subsidiary of the Company
“CNMHKI”	China Nonferrous Mining Hong Kong Investment Limited (中色礦業香港投資有限公司), an investment holding company incorporated in Hong Kong on 2 December 2016 with limited liability under the Companies Ordinance, a directly controlling subsidiary of the Company
“Companies Ordinance”	the Companies Ordinance of Hong Kong (Chapter 622 of the laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
“Company”, “we”, “us” or “our”	China Nonferrous Mining Corporation Limited (中國有色礦業有限公司), a company incorporated in Hong Kong on 18 July 2011 with limited liability under the Companies Ordinance and, except where the context otherwise requires, all of its subsidiaries or where the context refers to any time prior to its incorporation, the business which its predecessors or the predecessors of its present subsidiaries were engaged in and which were subsequently assumed by it



## DEFINITIONS (CONTINUED)

“Compliance Committee”	the compliance committee of the Board
“connected person(s)”	has the meaning ascribed thereto in the Listing Rules
“connected transaction(s)”	has the meaning ascribed thereto in the Listing Rules
“controlling shareholder”	has the meaning ascribed thereto under the Listing Rules
“Deed of Non-Competition Undertaking”	a deed of non-competition undertaking dated 14 May 2012 entered into between CNMC and the Company under which CNMC has given us certain undertakings in respect of the conduct of certain of its activities outside the PRC
“Director(s)”	director(s) of the Company
“DRC”	the Democratic Republic of the Congo
“Fifteen MCC Africa”	Fifteen MCC Africa Construction & Trade Ltd (中國十五冶非洲建築貿易公司*), a company incorporated under the laws of Zambia on 24 May 2007 and a fellow subsidiary of CNMC
“Global Offering”	the offering of the Shares of the Company for subscription by the public in Hong Kong and purchase by institutional and professional investors as described in the Prospectus
“Group”, “we” or “us”	the Company and its subsidiaries or any of them, or where the context so requires, in respect of the period before the Company became the holding company of its present subsidiaries, the present subsidiaries of the Company
“HK\$” or “Hong Kong dollar(s)”	Hong Kong dollars, the lawful currency for the time being of Hong Kong
“HKFRS”	Hong Kong Financial Reporting Standard, as issued by the Hong Kong Institute of Certified Public Accountants
“Hong Kong” or “HK”	the Hong Kong Special Administrative Region of the People’s Republic of China
“Hong Kong Stock Exchange”	The Stock Exchange of Hong Kong Limited

## DEFINITIONS (CONTINUED)

“Hong Kong Zhongfei”	Hong Kong Zhongfei Mining Investment Limited (香港中非礦業投資有限公司), a company incorporated under the Companies Ordinance in Hong Kong in January 2014 holding 30% of SML and 30% of CNMHK
“Huachin Leach”	Huachin Metal Leach SA (中色華鑫濕法冶煉股份有限公司*), a company incorporated under the laws of the DRC on 17 December 2010 and a subsidiary of SML
“Huachin Minerals”	Huachin Minerals SARL (formerly known as Huachin Minerals SPRL) (華鑫礦產有限責任公司*), a company incorporated under the laws of the DRC on 27 January 2011 and an associate of the Company
“Independent Shareholders”	Shareholders other than CNMD and its associates
“JORC”	the Australasian Joint Ore Reserves Committee
“JORC Code”	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
“Kambove Mining”	Kambove Mining SAS (剛波夫礦業簡易股份有限公司*), a company established in DRC and a subsidiary of the Company
“LIBOR”	London Interbank Offer Rate
“Listing”	the listing of the Shares on the Main Board of the Hong Kong Stock Exchange on 29 June 2012
“Listing Rules”	The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended from time to time

## DEFINITIONS (CONTINUED)

“Lualaba Copper Smelter”	Lualaba Copper Smelter SAS (盧阿拉巴銅冶煉股份有限公司*), a company established in DRC and a subsidiary of the Company
“Luanshya”	CNMC Luanshya Copper Mines PLC (中色盧安夏銅業有限公司*), formerly Luanshya Copper Mines PLC, a company incorporated in Zambia on 10 July 2003 and a subsidiary of the Company
“Mabende Mining”	Mabende Mining SARL (馬本德礦業有限責任公司*) (formerly known as Mabende Mining SPRL (馬本德礦業有限公司*)), a company incorporated under the laws of the DRC
“Mabende Project”	the project undertaken by SML through CNMC Huachin Mabende to construct and operate a leaching plant in the DRC
“Main Board”	the Main Board of the Hong Kong Stock Exchange
“Model Code”	the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 of the Listing Rules
“MPongwe”	CNMC MPongwe Mining Company Ltd (中色鵬威礦業有限公司*), a company incorporated in Zambia on 3 May 2010, and a subsidiary of CNMC
“Muliashi Project”	an integrated project involving the mining and leaching of copper oxide ores undertaken by Luanshya, including the Muliashi North Mine, the Muliashi Leach Plant and the planned Baluba East Mine
“NFC A”	NFC Africa Mining PLC (中色非洲礦業有限公司*), a company incorporated in Zambia on 5 March 1998, and a subsidiary of the Company
“Nomination Committee”	the nomination committee of the Board
“Non-Competition Undertaking”	the non-competition undertaking set out in the Deed of Non-Competition Undertaking

## DEFINITIONS (CONTINUED)

“PRC government” or “State”	the government of the PRC, including all governmental subdivisions (including provincial, municipal and other regional or local government entities)
“Properties Leasing Framework Agreement”	the properties leasing framework agreement dated 18 November 2014 entered into between the Company and CNMC
“Prospectus”	the prospectus dated 20 June 2012 issued by the Company in connection with the Global Offering and the Listing
“Remuneration Committee”	the remuneration committee of the Board
“Renminbi” or “RMB”	Renminbi yuan, the lawful currency for the time being of the PRC
“Retained Group”	CNMC and its subsidiaries (excluding the Group)
“SFO”	the Securities and Futures Ordinance of Hong Kong (Chapter 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
“Share(s)”	ordinary share(s) in the share capital of the Company
“Shareholder(s)”	holder(s) of the Shares of the Company
“SML”	Sino-Metals Leach Zambia Limited (贊比亞謙比希濕法冶煉有限公司*), a company incorporated under the laws of Zambia on 3 December 2004 and a subsidiary of the Company
“subsidiary” or “subsidiaries”	has the meaning ascribed thereto in section 2 of the Companies Ordinance
“substantial shareholder”	has the meaning ascribed thereto in the Listing Rules
“United States”	the United States of America, its territories, its possessions and all areas subject to its jurisdiction
“US ¢ “or”US cent(s)“	United States cents, the lawful currency for the time being of the United States
“US\$“, “USD” or”US dollar(s)“	United States dollars, the lawful currency for the time being of the United States

## DEFINITIONS (CONTINUED)

“VAT”	value-added tax; all amounts are exclusive of VAT in this report except indicated otherwise
“Year”	year ended 31 December 2017
“YH Metal”	Yunnan & Hongkong Metal Company Limited (雲港金屬有限公司), a company established in Hong Kong with limited liability and a wholly-owned subsidiary of Yunnan Copper Group
“Yunnan Copper”	Yunnan Copper Industry Co., Ltd* (雲南銅業股份有限公司), a company incorporated under the laws of the PRC on 15 May 1998 and a subsidiary of Yunnan Copper Group
“Yunnan Copper Group”	Yunnan Copper Industry (Group) Co., Ltd.* (雲南銅業(集團)有限公司), a company incorporated under the laws of the PRC in April 1996 holding 40% of the issued share capital of CCS
“Zambia”	the Republic of Zambia
“ZCCM”	Zambia Consolidated Copper Mines Limited, a company incorporated in Zambia in 1982 and succeeded by ZCCM-IH
“ZCCM-IH”	Zambia Consolidated Copper Mines Investments Holdings Plc, the successor company to ZCCM, majority owned by the Government of Zambia
“ZCCZ”	Zambia-China Economic & Trade Cooperation Zone Development Ltd (贊比亞中國經濟貿易合作區發展有限公司*), a company incorporated in Zambia on 16 January 2007 and a subsidiary of CNMC
“ZMK”	Zambian Kwacha, the lawful currency for the time being of Zambia

\* Translation of English or Chinese terms for reference purposes only.



**中國有色礦業有限公司**  
China Nonferrous Mining Corporation Limited

