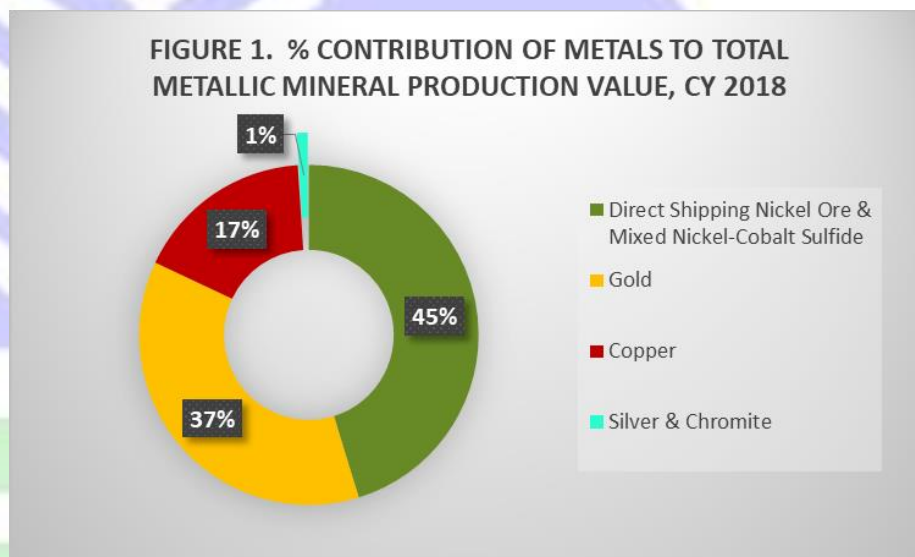


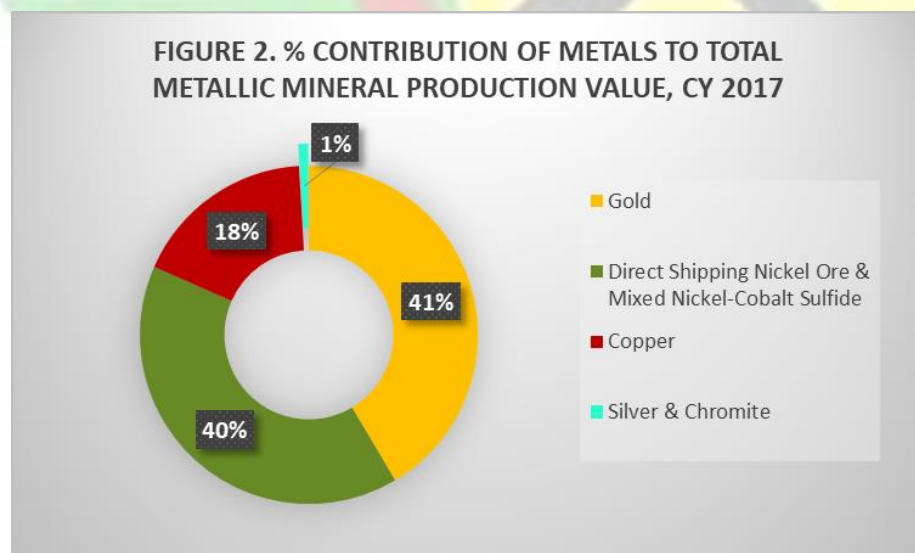
Metals output up by 10.42% in 2018

The Philippines' metallic mineral production value went up by 10.42% from PhP110.43 billion in 2017 to PhP121.94 billion in 2018, PhP11.51 billion increase. This marks a two-year positive run for the metallic minerals industry.

In terms of contribution to the country's metallic production value of PhP121.94 billion, nickel direct shipping ore and mixed nickel-cobalt sulfide continued to lead the pack with 45.25% share, or PhP55.18 billion. Gold was in second spot with 36.74% contribution, or PhP44.81 billion; followed by copper with 16.96%, or PhP20.68 billion. The remaining 1.05%, or PhP1.28 billion, came from the combined values of silver and chromite.



VS.



Direct shipping nickel ore and mixed nickel-cobalt sulfide dominated the production scene in 2018. The big players during the year were Taganito Mining Corporation (TMC) with 5,739,275 dry metric tons, Rio Tuba Nickel Mining Corporation (RTNMC) was second with 4,707,585 dry metric tons followed by Platinum Group Metals Corporation with 3,087,527 dry metric tons. On the other hand, of the 30 listed nickel companies, ten or 30% reported zero production due to care and maintenance program and suspension by the government. Mine production was down by 4% from 27,085,778 dry metric tons to 25,907,452 dry metric tons year-on-year. Production value however, rose by 16% from PhP24.65 billion to PhP28.59 billion, an increase of PhP3.94 billion. China continued to be the country's top export market for nickel followed by Japan.

Mixed nickel-cobalt sulfide (MNCS) contributed about PhP26.59 billion in 2018. This was the combined output of Coral Bay Nickel Corporation (CBNC) and Taganito HPAL Nickel Corporation (THPAL), thru their hydrometallurgical nickel processing plants using the High-Pressure Acid Leach (HPAL) technology. HPAL uses sulphuric acid in high-temperature and high-pressure autoclave vessels to leach nickel and cobalt from low grade lateritic nickel ores. All the limonite ores requirement by CBNC are supplied by RTNMC while the limonite ores for THPAL come from TMC. In terms of contribution, THPAL accounted for 55% or 46,165 dry metric tons while CBNC shared 45% or 38,349 dry metric tons of the total MNCS output during the year.

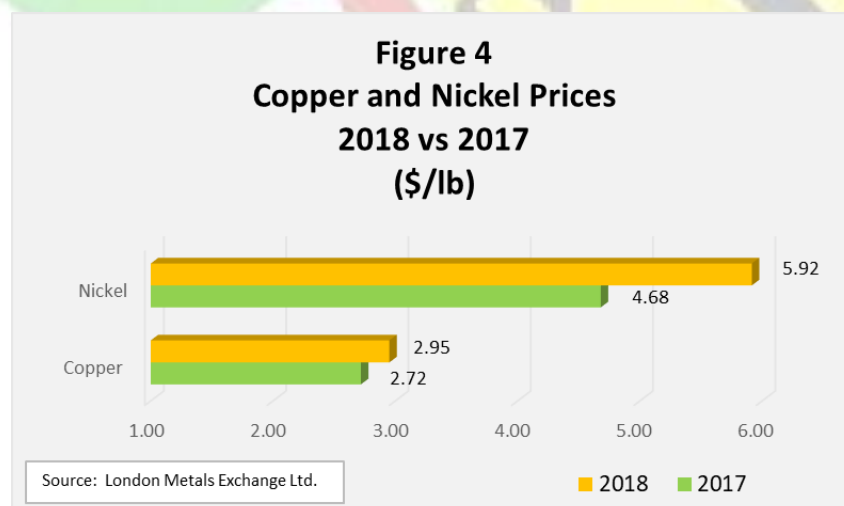
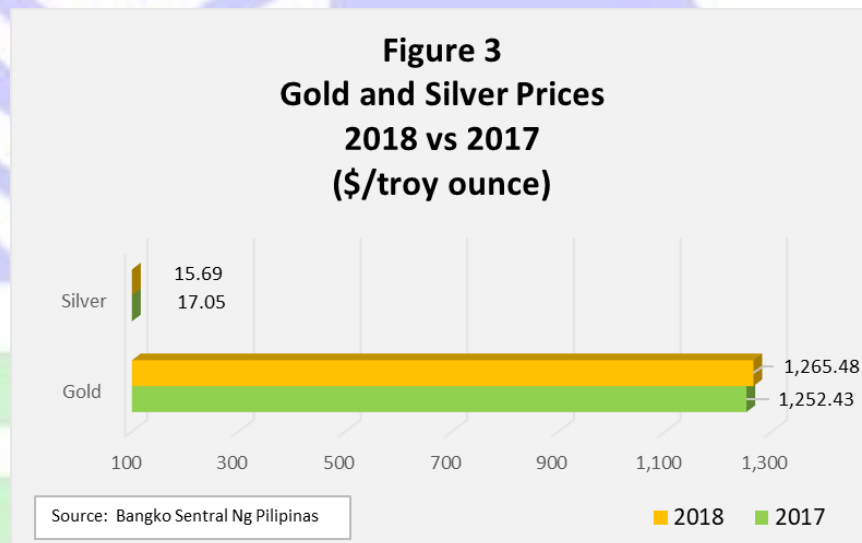
On red metal, the entry of the Quartz-Pyrite Gold Project of Lepanto Consolidated Mining Corporation to the production scene help boost copper production volume and value by 1% and 7%, respectively from 280,394 dry metric tons with estimated value of PhP19.30 billion to 282,391 dry metric tons with estimated value of PhP20.68 billion year-on-year.. The key player for the period was the Toledo Copper Operations of Carmen Copper Corporation in Cebu with 149,428 dry metric tons or 53% of the total copper production. Currently, we only have four mines producing copper.

Precious metals gold and silver exhibited declines in their production records in 2018. Gold incurred a 9% and 2% deficit in volume and value, respectively from 22,749 kilograms, valued at PhP45.80 billion, to 20,765 kilograms, valued at PhP44.81 billion year-on-year. Philippine Gold Processing and Refining Corporation (PGPRC) located in Masbate province stood tall over the rest of the gold producers accounting for about 32% or 6,734 kilograms. In far second, was OceanaGold Phils. Inc. (OGPI) located in Nueva Vizcaya with 17% or 3,579 kilograms. Greenstone Resources Corporation in Surigao del Norte is still under care and maintenance program.

Silver, likewise suffered production volume and value setback at 6% and 9%, respectively from 31,737 kilograms valued at PhP0.87 billion to 29,782 kilograms valued at PhP0.79

billion year-on-year. Apex Mining Company Inc. in Compostela Valley recorded the highest silver production with 32% or 9,543 kilograms. In second and third position were OGPI and PGPRC at 5,774 kilograms and 4,925 kilograms, respectively.

The 10.42% growth in production value was spark by the relatively improved base metal prices of nickel and copper with 26.40% and 8.54% growths, respectively. From an average price of \$4.68 per pound in 2017, nickel price went up to US\$5.92 per pound in 2018. Copper likewise grew from US\$2.72 per pound to US\$2.95 per pound year-on-year. Gold followed suit, with an average price of US\$1,265.48 per troy ounce, from US\$1,252.43 per troy ounce, year-on-year. The strong demand from China for its stainless steel production kept metal prices in better levels. China remains the largest market for metals over 50% of the global consumption.



Translating the mineral production output in terms of peso value, the top 12 mining projects and mineral processing plants in 2018 were the following:

Project Name	Company Name	Type of Permit	Mineral Commodity	Project Location	Estimated Production Value 2018 (in Billion PHP)
1. Taganito HPAL Project	Taganito HPAL Nickel Corporation	MPP	Mixed Nickel-Cobalt Sulfide	Surigao del Norte	14.95
2. Masbate Gold Project	Filminera Mining Corporation/Philippines Gold Processing and Refining Corporation	MPP	Gold, Silver	Masbate	14.58
3. Toledo Copper Operations (Carmen and Lutopan Projects)	Carmen Copper Corporation	MPSA	Copper, Gold, Silver	Cebu	13.09
4. Didipio Copper Gold Project	Oceana Gold Philippines Inc.	FTAA	Copper, Gold, Silver	Nueva Vizcaya and Quirino	12.98
5. Coral Bay HPAL Project	Coral Bay Nickel Corporation	MPP	Mixed Nickel-Cobalt Sulfide	Palawan	11.64
6. Padcal Copper-Gold Project	Philex Mining Corporation	MPSA	Copper, Gold, Silver	Benguet	8.37
7. Co-o Gold Project	Philsaga Mining Corporation/Mindanao Mineral Processing and Refining Corporation (MMPRC)	MPP	Gold, Silver	Agusan del Sur	6.06
8. Claver Nickel Project	Taganito Mining Corporation	MPSA	Nickel	Surigao del Norte	5.81
9. Apex Maco Operation	Apex Mining Corporation	MPSA	Gold, Silver	Compostela Valley	4.99
10. Cagdianao Nickel Project	Platinum Group Metals Corporation	MPSA	Nickel	Surigao del Norte	4.39
11. Rio Tuba Nickel Project.	Rio Tuba Nickel Mining Corporation	MPSA	Nickel	Palawan	4.01
12. Cagdianao Mining Project	Cagdianao Mining Corporation	MPSA	Nickel	Dinagat Island	3.34

Notes:

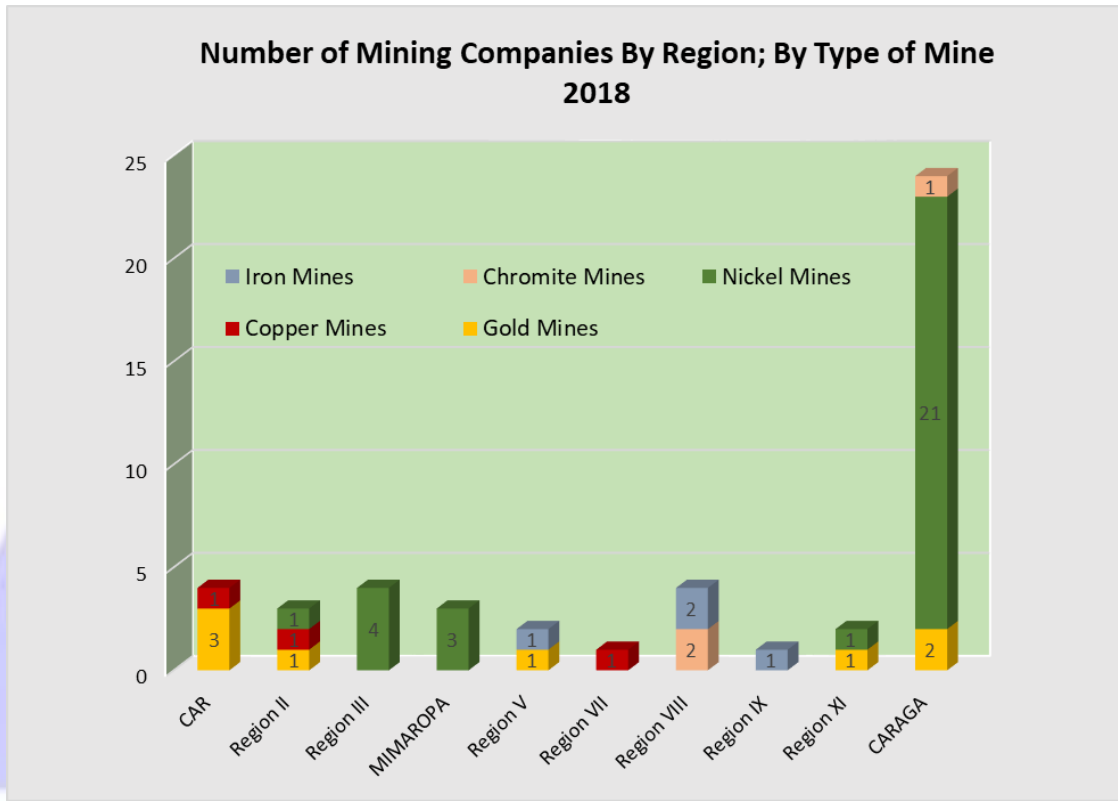
FTAA - Financial or Technical Assistance Agreement

MPSA - Mineral Production Sharing Agreement

MPP - Mineral Processing Permit

The figures stated for Rio Tuba Nickel Mining Corporation and Taganito Mining Corporation include the nickel ores delivered to Coral Bay Nickel Corporation and Taganito HPAL Nickel Corporation, respectively.

Being a country richly endowed with mineral resources, in 2018, the country hosts 48 operating metallic mines consisting of the following: 30 nickel; eight gold with silver as co-product; three copper with gold and silver as co-products; three chromite; and four iron mines. These are in addition to the two hydrometallurgical nickel processing plants; and two gold processing plants. There are also 15 existing Exploration Permits and 12 declared Minahang Bayan or People's Small-Scale Mining Area, nine for gold and three for chromite.



The most noteworthy developments in 2018 for the minerals industry includes: 1) the implementation of Tax Reform for Acceleration and Inclusion (TRAIN) Law; and 2) the issuance of new environmental policies to solidify the current advocacy of the government on the protection of the environment.

The TRAIN Law was seen to increase the revenues collected from mining as excise tax rate for minerals and mineral products doubled from 2% to 4%. This is provided under Revenue Regulations No. 1-2018 (Providing for the Revised Tax Rates on Mineral Products pursuant to the Provisions of RA No. 10963, otherwise known as the "Tax Reform for Acceleration and Inclusion [TRAIN] Law" Amending for the Purpose Revenue Regulations No. 13-94).

The new environmental policies issued include: 1) Memorandum Circular No. 2018-02, or the *Guidelines for Compliance Monitoring and Rating/Scorecard of Mining Permits/Contracts*; 2) Administrative Order No. 2018-19, or the *Guidelines for Additional Environmental Measures for Operating Surface Metallic Mines*; and 3) Administrative Order No. 2018-20, or *Providing for a New Guidelines in the Evaluation and Approval of the Three-Year Development/Utilization Work Program*.

In addition, consultations/discussions on the proposed fiscal reform and revenue sharing arrangement for the mining industry is still underway.

Philippines Metallic Mineral Production CY 2018 vs CY 2017

Mineral Commodity	Unit Used	CY 2018		CY 2017		% Change	
		Quantity	Value (PhP)	Quantity	Value (PhP)	Quantity	Value
PRECIOUS METALS							
Gold	KGS.	20,765	44,807,203,837	22,749	45,795,694,225	-9	-2
Silver	KGS.	29,782	790,728,449	31,737	867,026,593	-6	-9
BASE METALS							
Copper Concentrate	DMT	282,391	20,678,459,054	280,394	19,304,840,114	1	7
Nickel Sulfides	DMT	84,514	26,587,187,474	87,612	19,641,108,092	-4	35
Nickel Direct Shipping Ore	DMT	25,907,452	28,589,022,817	27,085,778	24,648,501,008	-4	16
Chromite	DMT	45,011	488,713,607	20,849	172,018,045	116	184
TOTAL			121,941,315,238		110,429,188,077		10.42

By: Mineral Economics, Information and Publications Division

