MINES AND GEOSCIENCES BUREAU

MINE MATTERS







METALLIC PRODUCTION VALUE SUSTAINS GROWTH

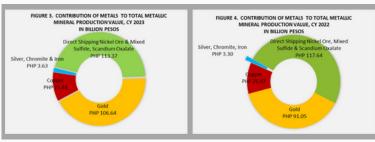
Metallic mineral production value sustains growth in CY 2023 from PhP237.66 billion to PhP249.05 billion, up by a margin of PhP11.39 billion or 4.79%.

This performance was attributed primarily to the positive showing of gold and nickel ore. In terms of production value gold enjoyed a 17% or PhP15.59 billion increase from PhP91.05 billion in CY 2022 to PhP106.64 billion in CY 2023. Together, nickel ore exhibited a 7% or PhP4.18 billion increase from PhP61.66 billion to PhP65.84 billion, year-on-year.

The prices of metals gold and silver went up by 7.80% and 7.85%, respectively. The recorded average price of gold was US\$1,802.28 per troy ounce to US\$1,942.80 per troy ounce up by US\$140.51 while silver was up by US\$1.71 from US\$21.76 per troy ounce to US\$23.47 per troy ounce, year-on-year. Nickel and copper prices were lackluster in CY 2023 for nickel from US\$11.86 per pound to US\$9.93 per pound, down by US\$1.92, year-on-year while for copper from US\$4.00 per pound to US\$3.85 per troy pound year-on-year.



In terms of contribution to the total production value, nickel ore and its by-products, nickel-cobalt mixed sulfide (NCMS), and scandium oxalate altogether took the lead with PhP113.37 billion or 45.52%. Gold grabbed the second spot with PhP106.64 billion or 42.82%. Copper was in third position with PhP25.41 billion or 10.20%. While the collective values of silver, chromite, and iron ore accounted for PhP3.63 billion or 1.46%. New players in the production scene in CY 2023 include Gran Consolidated Incorporated located in Davao de Oro for gold while for nickel, there's ARC Nickel Resources and Hallmark Mining Corporation both located in Davao Oriental, and finally Kafugan Mining Inc. in Surigao del Sur completed the production circle.



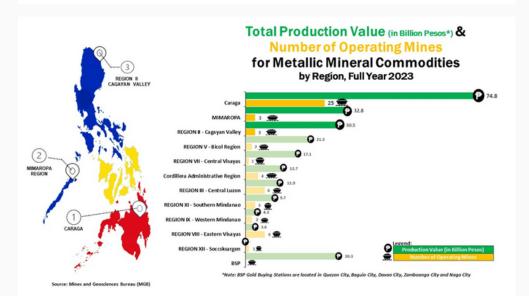
On regional contribution to the total production value, Caraga was at the helm with 30.04% or PhP74.79 billion, followed by MIMAROPA with 13.18% or PhP32.81 billion, and closely in third was Cagayan Valley with 12.24% or PhP30.46 billion. In terms of the number of operating metallic mines in the Region. Caraga remains the country's mining capital, with two gold mines, one chromite mine, 21 nickel mines, one hydrometallurgical processing plant, and one gold processing plant. It is important to note, that two (2) nickel mines in Caraga namely, Agata Mining Ventures, Inc. located in the Province of Agusan del Norte and Adnama Mining Resources, Inc. in the Province of Surigao del Norte are transitioning to the implementation of the Final Mine Decommissioning and/or Rehabilitation MIMAROPA, on the other hand, has three nickel mines and one hydrometallurgical processing plant while Cagayan Valley has one gold mine, one copper mine, and one nickel mine.



Region II is home to two (2) Financial or Technical Assistance Agreement (FTAA), FCF Minerals Corporation and OceanaGold (Phils) Inc. In addition, the Bangko Sentral Ng Pilipinas (BSP) gold purchases amounted to about PhP30.31 billion with five gold buying stations strategically located in the country namely, Baguio City, Davao City, Naga City, Zamboanga City and MROD-Quezon City. Zamboanga City buying station reported no purchases during the year. The BSP figures include the 25% of OGPI gold dore production in CY 2023 which is about 373 kilograms. The government required the company to sell 25% of its gold dore to BSP as part of the terms and conditions in their FTAA renewal contract in 2021.

Table 1. Contribution to Total Production-Value for Metallic Mineral Commodities, By Region (CY 2023)

REGION	Metallic Mineral Commodities	PRODUCTION VALUE (In Billion PhP)		
Caraga	Chromite, Gold, Silver, Mixed Nickel Cobalt- Sulfide, Nickel Ore, Scandium Oxalate	74.79		
MIMAROPA	Mixed Nickel Cobalt-Sulfide, Nickel Ore	32.81		
REGION II - Cagayan Valley	Copper, Gold, Silver, Nickel Ore	30.46		
REGION V - Bicol Region	Gold, Silver	21.31		
REGION VII - Central Visayas	Copper, Gold, Silver	17.11		
Cordillera Administrative Region*	Copper, Gold, Silver	12.73		
REGION III - Central Luzon	Iron Ore, Nickel Ore	11.89		
REGION XI - Southern Mindanao	Gold, Silver, Nickel Ore	9.71		
REGION IX - Western Mindanao	Gold, Silver	4.34		
REGION VIII - Eastern Visayas	Chromite, Iron Ore, Nickel Ore	3.60		
Bangko Sentral Ng Pilipinas Gold Purchases*	Gold	30.31		
Total		249.05		



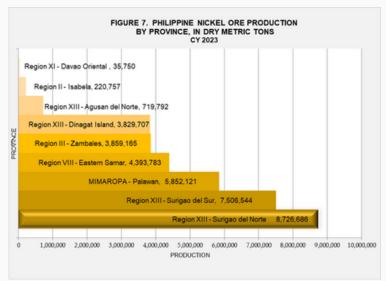
The collective values of nickel direct shipping ore, NCMS, and scandium oxalate declined by about 3.63% or PhP4.26 billion from PhP117.64 billion to This was due to the reported lower plant PhP113.37 billion year-on-year. output both in volume and value of NCMS and scandium oxalate. On the other hand, nickel ore mine output volume and value grew by 19% and 7%, respectively from 29,423,836 dry metric tons with an estimated production value of PhP61.66 billion to 35,144,306 dry metric tons with an estimated production value of PhP65.84 billion.

Based on the published London Metal Exchange price matrix the average nickel price registered in CY 2023 was 16.21% lower than in CY 2022 from US\$11.86 per pound to US\$9.93 per pound, year-on-year.

Looking closely at the LME nickel price in 2023, the highest was in January 2023 at US\$12.67 per pound and went downward as the year advanced. The lowest recorded price was US\$7.43 per pound in December 2023 (Refer to Figure 6). Generally, CY 2023 prices were still higher than recorded prices from CY 2019 to CY 2021.



In terms of regional nickel ore production Caraga considered the nickel hub of the country accounted for 59.14% with 20,782,729 dry metric tons, followed by MIMAROPA with about 16.65% or 5,852,121 dry metric tons while Regions VIII and III accounted for about 12.50% or 4,393,783 dry metric tons and 10.98% 3,859,165 dry metric tons, respectively. Finally, Regions II and XI completed the production loop with 220,757 dry metric tons and 35,750 dry metric tons, respectively (Refer to Figure 7). Davao Oriental is the latest emerging province for the country's source of nickel ore. The country's nickel ore is being exported China, Japan, Korea, Indonesia with China getting 98% or 17,635,883 dry metric tons.



While for NCMS production volume and value of Coral Bay Nickel Corporation and Taganito HPAL Nickel Corporation (THPAL), slowed down by 4% and 15%, respectively from 80,991 dry metric tons with an estimated value of phP55.53 billion to 77,904 dry metric tons with an estimated value of PhP47.24 billion year-on-year. production volume and value of scandium oxalate of Taganito THPAL likewise dropped by as much as 9% and 35%, respectively from 20,148 Dry-Kg with an estimated value of PhP451.36 million to 18,302 Dry-Kg with an estimated value of PhP291.60 million, year-on-year. The scandium oxalate is a by-product of THPAL's operation.

Production volume and value of gold increased by 7% and 17% from 29,036 kilograms with an estimated value of PhP91.05 billion to 31,046 kilograms with an estimated value of PhP106.64 billion. The top three (3) gold producing Regions include the Cagayan Valley Region with 6,613 kilograms or 21% closely followed by the Bicol Region with 6,047 kilograms or 19% and Southern Mindanao with 2,964 kilograms or 10 % of the total country's gold output. Cagayan Valley Region is home to FCF Minerals and OGPI both hold an FTAA. The re-entry of Greenstone Resources Corporation into the production scene this year has also raised production. Said company has been under care & maintenance status since 2018. For its initial offering this year it produced 201 kilograms of gold with an estimated value of PhP0.68 billion. In terms of individual performance by project, the Philippine Gold Processing and Refining Corporation and OGPI ruled with 6,047 kilograms or 19.48% and 3,936 kilograms or 12.68%, of the total gold production, respectively.

BSP gold purchases volume and value also exhibited substantial gains of 26% and 39%, respectively from 6,927 kilograms with an estimated value of PhP21.82 billion to 8,714 kilograms with an estimated value of PhP30.31 billion. About 373 kilograms of gold dore were sold to BSP by OGPI. Of the five (5) buying stations of BSP namely: Baguio City, Davao City, Naga City, Zamboanga City and Quezon City. No purchases were made at the Zamboanga City buying station during the review period. Switzerland, Hong Kong, and India were the country's top destinations for this metal.

The average price of the yellow metal in CY 2023 was higher by US\$140.51 from US\$1,802.28 per troy ounce to US\$1,942.80 per troy ounce, year-on-year (Refer to Figure



Silver production volume and value were sluggish in CY 2023 from 56,277 kilograms with an estimated value of PhP2.13 billion to 46,160 kilograms with an estimated value of PhP1.86 billion year-on-year. Out of the twelve (12) mining Projects that reported silver production only Philippine Gold Processing & Refining Corporation (PGPRC) and Itogon-Suyoc Resources Inc. enjoyed, increased mine output while all the rest suffered production shortfall. Heading the list with the highest shortfall was Balabag Gold-Silver Project of TVI Resources Development (Phils) Inc. from 26,081 kilograms to 17,378 kilograms year-on-year, down by a whopping 8,703 kilograms. Followed by FCF Minerals and Mindanao Mineral Processing and Refining Corporation. Despite lower output, TVI still dominated the production scene accounting for 17,378 kilograms or 37.65% of the total silver production followed by Apex Mining Company, Inc. and PGPRC with 10,700 kilograms and 6,653 kilograms, respectively. The average price of silver during the review period grew by 7.85% from US\$21.76 per troy ounce to US\$23.47 per troy ounce, year-on-year (Refer to Figure 9). Silver is a co-product of gold mines and a by-product of copper mines.



The production volume of copper posted a minor rise of 3% while value skid by 1% from 258,729 dry metric tons with an estimated value of PhP25.67 billion to 266,532 metric estimated tons an PhP25.41billion, Copper year-on-year. Carmen Corporation accounted for 151,987 dry metric tons or 57.02% of the total production. While OGPI and Philex Mining Corporation contributed 64,430 dry metric tons and 50,115 dry metric tons, respectively. Copper prices dropped by 3.73% from US\$4.00 per pound to US\$3.85 per pound (Refer to Figure 10). The country's copper was shipped to China, Japan, and South Korea.



Iron ore production volume and value went up by 3% and 11% from 75,771 dry metric tons with an estimated value of PhP232.35 million to 78,213 dry metric tons with an estimated value of PhP257.78 million year-on-year. Ore Asia Mining & Development Corporation in Bulacan was the lone producer. Strongbuilt Mining & Development Corporation and Atro Mining-Vitali Iron Inc. both reported zero production. China is the sole market of the country's iron ore.

On chromite production, volume and value also enjoyed progress from 87,182 dry metric tons with an estimated production value of PhP0.94 billion to 101,960 dry metric tons with an estimated production value of PhP1.51 billion year-on-year. Only Techiron Resources Inc. in Eastern Samar and Taganito THPAL in Surigao del Norte recorded production. THPAL chromite production is a by-product of its NCMS output. Krominco Inc. in Dinagat Island remains under care and maintenance status. The country's chromite ore is exported to China and Japan.

In terms of excise taxes and royalties paid within mineral reservation to the National Government, in CY 2023, the estimated excise tax collected is about PhP6.79 billion breaking down the estimated collection by type of mine from nickel mines is about PhP2.58 billion or 37.92%; gold mines accounted for PhP2.40 billion or 35.32%, for copper mines PhP1.76 billion or 25.99% while the combined collection from chromite and iron mines accounted for PhP0.51 billion. In addition, the estimated collection from the royalties derived by the government from the development and utilization of the mineral resources within the mineral reservation areas amounted to about PhP2.23 billion. Currently, we have 21 mining projects located within the mineral reservation areas, twenty nickel mining projects, and a chromite mining project.



Table 2. Declared Mineral Reservations in the Philippines

MINERAL RESERVATION	LOCATION			
Surigao Mineral Reservation (SMR)	Dinagat Island Province, Claver, Surigao del Norte, Adlay, Carrascal, Surigao del Norte			
2. Zambales Chromite Mineral Reservation	Municipalities of Masinloc, Sta. Cruz and			
(ZCMR)	Candelaria, Province of			
	Zambales			
3. Siruma White Clay Mineral Reservation	Municipality of Siruma, Province of Camarines Sur			
4. Offshore Mineral Reservation Areas	All submerged lands within the contiguous zone			
	and in the exclusive economic zone			
5. Samar Bauxite Mineral Reservation	Samar Island			
6. Ilocos Norte Feldspar Mineral Reservation	Caruan, Pasuquin, Ilocos Norte			
(INFMR)	-			
7. Alicia Mineral Reservation	Alicia, Zamboanga del Sur			
8. Biak-na-Bato (Marble) Mineral Reservation	D.R.T., Bulacan			
9. Mt. Diwata (Diwalwal) Gold Mineral	Monkayo, Compostela Valley			
Reservation				

PD 463 and RA 7942 state that "not less than five (5%) percent of the market value of the gross output of the minerals/mineral products extracted" shall be the royalty accruing to the government. Further, both laws also provide that 10% of all royalties and revenues from mineral reservations shall accrue to the MGB to be allotted for "special projects and other administrative expenses related to the exploration and development of other mineral reservations. At the same time, the remaining 90% shall be divided between the National Government (60%) and the Local Government (40%).

It is important to note that of the Philippines' total land area of 30 million hectares, as of January 2024, only about 2.50% or 751,432.75 hectares is covered by mining tenements. Based on MGB data nine (9) million hectares are identified as having high mineral potential. Still, only about 8.35% of the 9 million hectares considered to be highly mineralized areas are covered by mining tenements. Not included in the estimation are the Local Government issued permits like quarry permits, industrial and commercial sand & gravel permits. The Philippines is one of the nations with the greatest mineral endowment, having an abundance of nickel, gold, copper, and other valuable minerals.

As a short-term outlook, the performance of the minerals sector will always be dictated by prices and price behaviors will naturally depend on the world supply and demand patterns this year and into the next. Supply is influenced by production cutbacks and shortfalls due to disruptions brought about by geopolitical conflicts, weather conditions and fuel prices among others. The entry of new players or expansion of existing projects will also be a big factor. While demand is shaped by how robust or weak the global economy in the construction, and manufacturing sectors will be.

Table 2. Philippines Metallic Mineral Production CY 2023 vs CY 2022

	Unit Used	CY 2023		CY 2022		% Change	
Mineral Commodity		Quantity	Estimated Value (Pesos)	Quantity	Estimated Value (Pesos)	Qty	Value
Gold	KGS.	31,046	106,637,544,130	29,036	91,047,640,068	7	17
Silver	KGS.	46,160	1,858,230,248	56,227	2,133,935,180	(18)	(13)
Copper Concentrate	DMT	266,532	25,407,845,406	258,729	25,673,401,385	3	(1)
Nickel Direct Shipping Ore	DMT	35,144,306	65,845,222,637	29,423,836	61,659,907,355	19	7
Nickel-Cobalt Mixed Sulfide	DMT	77,904	47,238,141,734	80,991	55,529,005,262	(4)	(15)
Scandium Oxalate	Dry-Kg	18,302	291,601,956	20,148	451,364,295	(9)	(35)
Chromite	DMT	101,960	1,513,771,689	87,182	936,018,543	17	62
Iron Ore	DMT	78,213	257,785,026	75,771	232,347,048	3	11
TOTAL			249,050,142,826		237,663,619,135		4.79

As of 29 February 2024



