

Mineral Royalty Rates

A Policy Review

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Mineral royalty is the economic rent due to the sovereign owner (government) in exchange for the right to extract mineral substances. The mineral royalty rates are specified in the Second Schedule of the Mines and Minerals (Development and Regulation) Act (MMDR), 1957, enacted post-independence to regulate and develop the mining sector in India. The Act, amended in 2015, introduced an auctions system to address three major concerns –transparency, fairness, and objectivity – raised by the Supreme Court regarding the mineral asset allocation process. There are three royalty systems applied to non-fuel systems—tonnage-based, ad valorem systems, and profit-based systems. The tonnage-based system, applied at a fixed rate, is used for low-value, high-volume minerals like limestone and lime shell. Ad valorem systems are applied as a percentage of the sales revenue whereas profit systems are applied to the sales revenue after deducting the costs. Most African countries follow the ad-valorem system while Canadian mining jurisdictions apply the profit-based system. However, some mining jurisdictions like India, Australia, and some Canadian jurisdictions apply a combination of two systems.

India's mineral royalty rates are among the highest in the world, thus, impacting the competitiveness of the mining sector. The royalty payments over and above the auction premia put a heavy burden on the mining companies. Adjusting the rates in alignment with the global best practices will facilitate investment and development in the mining sector. Lower royalty rates would encourage future exploration and production of minerals in India.

There are different opinions on defining the royalties. The most common view, including that of the World Bank, is mineral royalty is the amount the mining company is obliged to pay to the government for the right to mine. The computation of such payments should be based on the quantity or the value of the resources, broken ores or petroleum, extracted from the ground. Hence, it is not considered a tax. The second group, including some pure economists and the IMF, considers royalty as one of the mineral taxation instruments and hence it should be based on profit or economic rent (Lilford & Guj, 2021).

India uses a combination of ad valorem and tonnage-based royalty systems. They are calculated in the following manner. The royalty on an ad valorem basis is calculated as follows (Indian Bureau of Mines, 2011):

Royalty = Sale price of mineral (grade-wise and state-wise) published by the Indian Bureau of Mines (IBM) X rate of royalty (in percentage) X total quantity of mineral grade produced/dispatched

The royalty on metallic minerals like copper, zinc, lead, bauxite, etc. is based on the price movements of the London Metal Exchange (LME). The royalty to be paid based on the London Metal Exchange (LME) or London Bullion Market Association price is calculated as follows:

Royalty = rate of royalty (in percentage) X sale price of the metal for the month published by IBM X total quantity of metal contained in ore/total by-product metal produced

The royalty on a tonnage basis is calculated as follows:

Royalty = quantity of mineral removed/ dispatched X specified rate of royalty (in rupees)

The royalty rates can be reviewed or revised every three years by a Study Group. Generally, it is an upward revision of the rates. The last Study Group was constituted in 2018. They submitted their report in 2019 which was not accepted by the government. In January 2020, another 11-member panel was set up to examine the issues raised by the stakeholders. The rates haven't been revised yet.

Over the last 50 years, India has gradually moved away from the tonnage system with more minerals being absorbed into the ad-valorem system. In 2015, only six minerals were classified into tonnage rates with graphite, limestone, and tungsten among them (Indian Bureau of Mines, 2011).

An investigation of the different royalty rates applied to iron ore, bauxite, and limestone has been done. Looking into iron ore royalty rates revealed that among developing nations using the ad-valorem system, India has the highest iron ore royalty rate at 15 per cent. Other developing countries like Angola, Mozambique, and South Africa have set their iron ore royalty rates from 3 to 7 per cent. India is among the top five iron ore mining jurisdictions. Even among the top iron ore-producing nations, India has the highest royalty rate. Table 1 shows a comparison of the top iron ore mining jurisdictions. The table also shows the use of auction processes in the jurisdiction. Over and above these royalties, India charges very high auction premiums along with the contributions to the District Mineral Foundation (DMF) and National Mineral Exploration Trust (NMET). In addition, mining companies also have to pay corporate and state taxes. Similarly, Brazil has auctions of brownfield mining leases where interested parties bid for the royalty amount. They use a hybrid system with both auctions and royalties.

Table 1: Top iron ore mining jurisdictions

	India	Western Australia	Queensland	Northern Territory	Brazil	China
Royalty Rate	15%	5%, 7.5% (beneficiated ore/ raw ore)	AU\$1.25 per tonne + 2.5% if price > AU\$ 100	Greater of 20% (less AU\$ 10,000) or 1%, 2%, 2.5%	3.5%	1%-9% (iron ore concentrate)
Royalty Base	Average Sale Price	Sales Revenue	Per Tonne and Sales Revenue	Net Value or Sales Revenue	Sales Revenue	Sales Revenue
Royalty System	Ad-valorem	Ad-valorem	Hybrid	Hybrid	Ad-valorem	Ad-valorem
Auction Premiums	Yes	No	No	No	No	Yes

Source: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=132659>; <http://www.dmp.wa.gov.au/Minerals/Royalties-1544.aspx>; <https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/payments/royalties/calculating/rates>; https://nt.gov.au/__data/assets/pdf_file/0003/470658/Mineral-Royalty-Act-overview-I-MR-003-2.pdf; <https://resourcehub.bakermckenzie.com/en/resources/global-mining-guide/latin-america/brazil/topics/global-mining-guide>; <https://iclg.com/practice-areas/mining-laws-and-regulations/china>

India has levied different royalty rates on metallurgical and non-metallurgical bauxite. Metallurgical bauxite is mainly used for alumina/ aluminium production. There was no distinction between the two until 2000. Currently, non-metallurgical grade bauxite has a royalty as high as 25 per cent of the average sale price. Till 1997 (tonnage-based rates), an increasing trend can be observed. The royalty rates transitioned in 2000 to *ad valorem* systems (at 0.35 per cent of the average sale price). However, the metallurgical rate is at 0.6 per cent of the metal contained in the ore and is based on the LME alumina prices. Equatorial Guinea follows a similar system as India (shown in Table 2) and charges much lower royalties (about 1/8th of India).

Table 2: Top bauxite mining jurisdictions

	India	Western Australia	Queensland	Northern Territory	Brazil	Guinea	China
Royalty Rate	0.60%	Bauxite: 7.5% Alumina: 1.65%	Non-domestic: the higher of 10% or \$2.00/tonne Domestic: the higher of 75% or \$1.50/tonne	Greater of 20% (less AU\$ 10,000) or 1% to 2.5%	3%	0.075%	3%-9%
Royalty Base	LME Price (metal contained in ore)	Sale Revenue (Bauxite/ Alumina)	Sale Revenue or Per Tonne (Bauxite)	Net Value or Sales Revenue (Bauxite)	Sales Revenue (Bauxite)	3-month LME Price Per Tonne (40% metal contained in ore)	Sales Revenue (Crude Bauxite ore)
Royalty System	Ad-valorem	Ad-valorem	Hybrid	Hybrid	Ad-valorem	Ad-valorem	Ad-valorem
Auction Premiums	Yes	No	No	No	No	No	Yes

Source: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=132659>; <http://www.dmp.wa.gov.au/Minerals/Royalties-1544.aspx>; <https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/payments/royalties/calculating/rates>; https://nt.gov.au/__data/assets/pdf_file/0003/470658/Mineral-Royalty-Act-overview-I-MR-003-2.pdf; <https://resourcehub.bakermckenzie.com/en/resources/global-mining-guide/latin-america/brazil/topics/global-mining-guide>; <https://iclg.com/practice-areas/mining-laws-and-regulations/china>; <https://assets.kpmg/content/dam/kpmg/pdf/2014/07/guinea-mining-guide.pdf>

Policy implications and the way forward

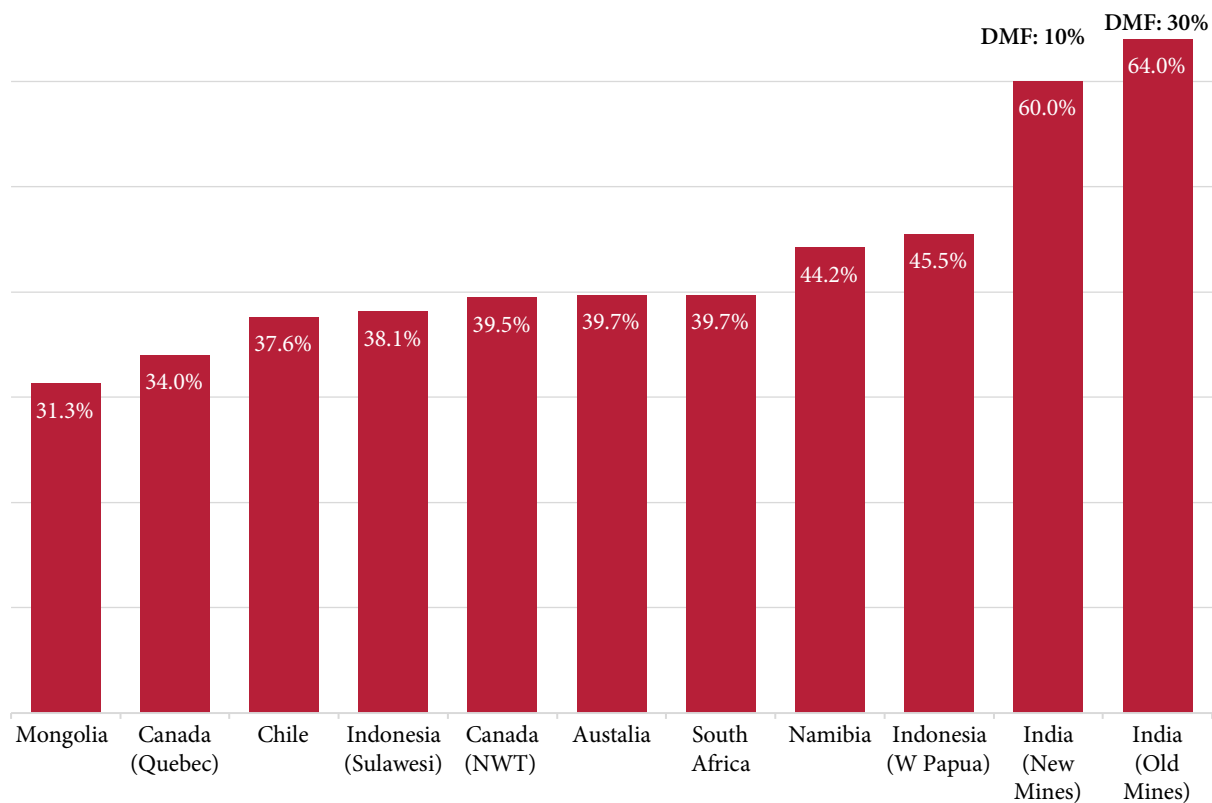
The analysis in this discussion note helps to identify certain issues with the royalty rates system applied in India. One of the issues is fallacious method of computing royalties. As per the government norms and as mentioned in the Mineral Conservation and Development Rules (MCDR), 2017, only the transportation and other actual expenditures are deducted for the calculation of the sale value. Royalty and payments to the DMF funds and the NMET are not deducted from the gross sale amount. The average sale price is calculated as the weighted average of the ex-mine prices of all non-captive mines. Hence, royalty is being included implicitly in the average sale price and is being computed on a double basis. In a recent notification by the Ministry of Mines, the government aims to resolve this issue by excluding the royalty, DMF, and NMET payments from the sale value while calculating the ex-mine price (Ministry of Mines, 2022).

The second issue is high effective tax rates (ETR). In the 2017 study done by the Federation of Indian Mineral Industries (FIMI), the ETR for new mines is 60 per cent where DMF is charged at 10 per cent of the royalty value and for old mines is 64 per cent where DMF is charged at 30 per cent of the royalty value as shown in Figure 1. But this calculation does not include auction premia and other charges (Federation of Indian Mineral Industries, 2017). The average auction premia for 97

mineral auctions was 86 per cent. Adding this to the ETR would increase it well above 100 per cent (Chadha & Sivamani, 2021). This discussion raises the question if both royalties and auction premia should be paid by the mining companies.

Finally, it is important to determine the optimum level of royalty rates. The royalty rates should be set at a level that facilitates investment and development in the mining sector. It should not deter the exploration and production of minerals. Modelling exercises are required to determine the ideal rates.

Figure 1: Effective tax rate in the mining sector



Source: FIMI – Note on mining and the burden of taxation in India <https://www.fedmin.com/fedmin/taxation.pdf>

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