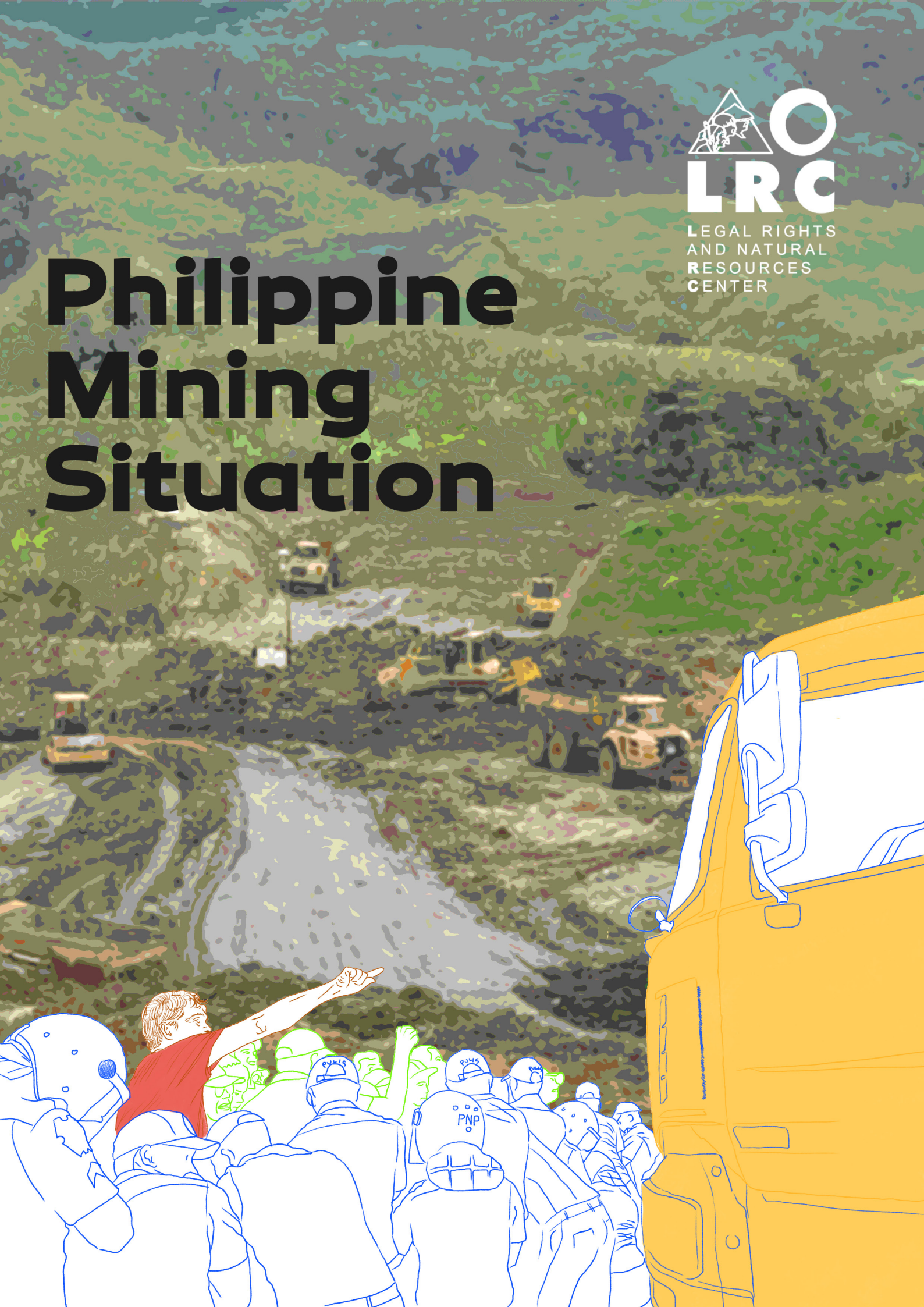

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The Legal Rights and Natural Resources Center (LRC) is a legal, research, policy, and advocacy institution that works for the recognition and protection of the rights of indigenous peoples and upland rural poor communities to land and environment. LRC is the Philippines member of Friends of the Earth International. For more information or any clarification about this publication, send an email to lrckskfoeph@gmail.com.

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EXECUTIVE SUMMARY

The Philippine Mining Situation report looks at the economic and political trends of the Philippine mining industry in the context of the current policy regime of the Marcos Jr. administration.

Globally, mining area coverage has doubled over the past three years, as the industry capitalized on the crisis-opportunities of both the COVID-19 pandemic and the climate emergency. So-called “critical minerals” necessary for energy transition saw the biggest economic growth over the past years, but they also invited increased resource nationalism and accountability.

The global value chains of these critical minerals are rooted in mining hotspots across the Philippines. The Japanese electric vehicle battery supply chain, for instance, sources nickel from mining and mineral processing firms in the Philippines with links to Sumitomo Metals Mining, a member of one of Japan’s biggest industrial conglomerates.

Government data reveal that nickel has shown the biggest percentage productiongrowth rate, as the country scrambles to cater to the demand particularly of China’s electric vehicle battery production. In the Bangsamoro region, one of the last mining frontiers of the country, mining and quarrying registered the second biggest growth rate among all economic sectors with special economic zones for processing so-called “green metals” in the pipeline.

Despite this windfall, mining contribution to GDP, taxes, and employment remains miniscule compared to agriculture, the national economy’s backbone. Mining policies are also seen to further exacerbate longstanding negative impacts on the environment, communities, and human rights.

Policy reversals during the last years of the former Duterte government had opened the country to new mining applications and fast-tracked commercial operations, anchored on pronouncements that previous fiscal and environmental reforms would pave the way for an era of mine safety and economic development.

These, however, are belied by realities at community level, demonstrating how approved mining projects, such as the Tampakan mine in the South-Central Mindanao area, have been permitted despite various ecological risks posing greater potential damages compared to their promised benefits.

A proposed new fiscal regime, the recently enacted Maharlika Investment Fund (MIF) and the establishment of green lanes for green metals investments are expected to heat up brewing tensions in nickel and copper mine sites in the country, which have seen increasing numbers of people’s barricades and protests. A clear consequence of escalating conflict is the surge of human rights violations linked to mining, especially across indigenous territories.





The revitalization of the mining industry under the return of the Marcos dynasty is seen as the most deceptively dangerous rhetoric of energy transition, with a hidden extractivist agenda, in response to the climate crisis.

Hence, this paper recommends the immediate reinstatement of the mining moratorium until such time a new mining policy direction that addresses the fundamental problems outlined in the discussion is in place. The latest iteration of the Alternative Minerals Management Bill (AMMB) remains the most viable policy proposal that is anchored on the tenets of ecological, social, and climate justice.

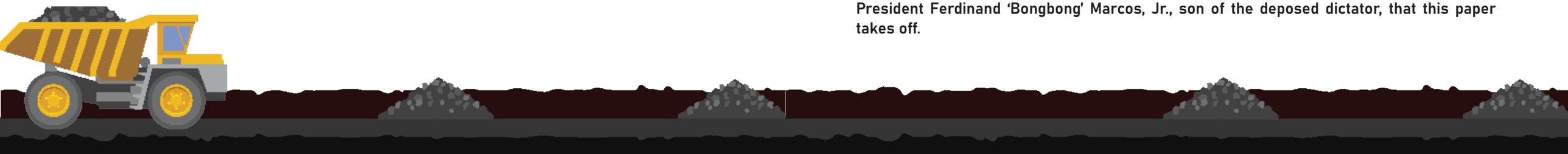
This paper likewise recognizes the initiatives of communities and protest movements to assert their rights and demand accountability as the first and last line of defense for naturescapes besieged by mining extractivism.

Introduction

The Philippines holds a significant position of interest in the ongoing global upsurge of mining activities. The country is rich in mineral resources, making it an ideal location for extractive activities. According to the Australian Trade and Investment Commission (n.d.), globally, the Philippines is the third richest in terms of gold and fourth in copper. Its nickel and chromite deposits also rank fifth and sixth in the world, respectively. Moreover, the Philippines is the second biggest nickel producer (Ignacio, 2023) and home to the fourth largest cobalt reserve in the world (NS Energy, 2021). The promotion of its mineral resources, hence, is a long-standing policy of the national government.

Since the Marcos dictatorship in the 1970s, the Philippines' mining policy regime has continued to liberalize mineralized lands for large-scale mining activities, especially of foreign or export-oriented corporations (Holden, 2005; Ofreneo, 2009). Ferdinand Marcos, Sr.'s Presidential Decree (PD) No. 463 (Mineral Resources Development) set the tone for the approach and attitude of the state toward mining, stating that all mineral resources of the Philippines are the property of the state, and it is incumbent upon the state not only to supervise but also to promote their exploration, development, and exploitation. Essentially, PD No. 463 was seen to incentivize big businesses to invest in mining. However, this "state-led mineral regime" (Camba, 2015) entailed the government to loan from commercial and financial institutions and to lend mining infrastructure to Marcos-preferred domestic corporations (Camba, 2015; Quintas, 2017).

In the 1980s, the fall of the Marcos dictatorship gave way to the administration of Corazon Aquino, who signed Executive Order (EO) No. 266 that benefited foreign corporations by providing them significant tax breaks, duty-free imports, and tax exemptions for the first five years. While mining was allowed, it was still under a great degree of state control, as well as the 60-% rule of Filipino ownership specified in EO No. 211 of 1987. That said, previous mining permits and licenses were recognized, and applications were freely accepted.



The subsequent administration of Fidel Ramos was more aggressive in the pursuit of mining investments. In addition to building on the legislation governing small-scale mining through Republic Act (RA) 7076, the Ramos administration also passed RA 7942 or the Mining Act of 1995.

The Mining Act of 1995 was passed with the intent of attracting foreign investors, increasing outputs from mining and quarrying activities in the country, and reviving the industry as a whole (Raymundo, 2014). The constitutionality of this law was legally challenged through a case filed before the Supreme Court (i.e., La Bugal-B'laan Tribal Association, Inc., et al. v. Victor Ramos), originally scoring a favorable decision before almost immediately getting overturned within the same year.

La Bugal-B'laan v. Ramos became pivotal in ushering in mining revitalization under the regime of former president Gloria Macapagal-Arroyo, who issued EO 270 s. 2004 or the National Policy Agenda on Revitalizing Mining in the Philippines. Under this EO, mining was framed as an avenue for sustainable economic growth "...with due regard for justice and equity, sensitivity to the culture of the Filipino people, and respect for the Philippine sovereignty."

Alongside the rebranding of mining policies to reflect a "responsible mining" spin, mining processes were streamlined and the establishment of mining operations was accelerated (Lopez, 2022).

Attempts to moderate the aggressive expansion of the industry continued under the regime of Benigno Aquino III with EO 79 s. 2012. While it implemented some reforms—such as declaring no-mining zones and a moratorium on new mining approvals—EO 79 came similarly packaged with fast-tracking provisions, such as the harmonization of local ordinances with the Mining Act as a means to override local mining bans and the creation of a one-stop-shop for all mining applications and procedures.

Riding on popular dissent against the mining industry up to this point, the Duterte administration initially pushed back on mining liberalization. A mining audit through the Department of Environment and Natural Resources (DENR) Memorandum Order No 2016-01 resulted in the suspension of at least 23 mining projects that were violating various regulations (DENR, 2017).

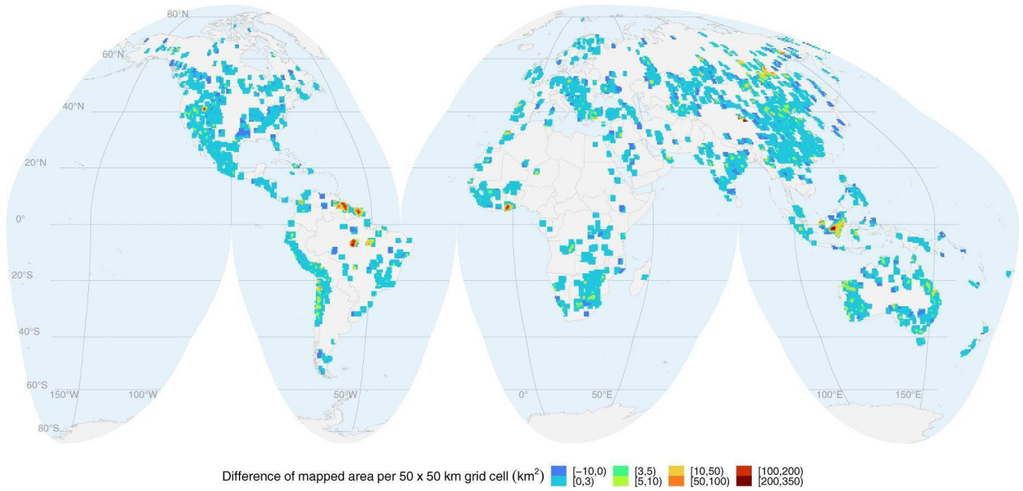
A particularly significant and controversial policy move was the issuance of the DENR Administrative Order (DAO) 2017-10, which completely banned open-pit mining for copper, silver, gold, and other complex ores. It further stated that mining contractors who have not yet commenced commercial operations but already have approved Declarations of Mining Project Feasibility are given a period of six months to review their planned mining methods.

All of these, however, were short-lived.

It is in the context of the series of policy reversals left by the Duterte regime, and how it has translated into further mining expansionism under the current continuity regime of President Ferdinand 'Bongbong' Marcos, Jr., son of the deposed dictator, that this paper takes off.

I. Global Context

In just short three years, between 2020 and 2022, global mining land use had almost doubled with a 77-% increase in area size from 57,277 km2 to 101,583 km2 (5,727,700 ha to 10,158,300 ha) (Maus et al., 2022). Mining expansion hotspots are evident in several countries, such as Russia, Venezuela, Indonesia, Brazil, Guyana, Suriname, and Ghana.



Map of Mining Land Area Spread. Source: Maus et al, 2022

The sizable gap that persists between the per capita consumption of industrialized nations (e.g., the EU-15 and the US) and the rest of the globe translates to the difference in per capita consumption rates between industrialized and developing nations when it comes to the primary metals used in their economies (Rogich & Matos, 2008). As a testament to current global flows, it is noteworthy that while steel and nearly all cement are used to build infrastructure in the country of consumption, large amounts of consumed copper and aluminum are used to make manufactured items, a significant portion of which are used and disposed of abroad (Rogich & Matos, 2008, p. 6.

1The EU-15 includes Belgium Denmark, Germany, Finland, France, Greece, Ireland, Italy, Luxembourg, Nether-lands, Austria, Portugal, Spain, the United Kingdom and Sweden.

According to the United Nations Conference on Trade and Development (UNCTAD), the development trajectories of mineral-rich developed countries, characterized by early domestic extraction, cannot be replicated in today's context within mineral-rich developing economies. The prevailing situation still involves the intense exploitation of mineral resources in developing countries primarily to meet the demands of external users rather than their own (UNCTAD, 2007). For instance, the gap between base metal consumption and extraction continues to grow in North America (Canada, the US, and Mexico) and the EU-15, where more material is consumed than extracted. The same trend is observed in Japan, the Republic of Korea, and China.

Other regions in the world are playing a major role in filling this extraction gap. However, this trend raises questions on the environmental pressure in extractive regions, as the ancillary outputs connected to the extraction and initial processing of commodities can have significant negative effects on the environment, particularly where more advanced technology is not available or used (Rogich & Matos, 2008, p. 7).

Over the past two decades, the participation of emerging market economies (i.e., China, India, Malaysia, and the Republic of Korea in Asia) in outward foreign direct investments (FDIs)—South-South investments—has been a growing feature in the global extractive industry. While privately-owned transnational corporations (TNCs) continue to dominate FDIs in mining, new TNCs are under state control, specifically China and India, which are largely spurned by the growing energy demands for their expanding domestic economies (UNCTAD, 2007).

Furthermore, the global energy transition spurred by the climate crisis is now seen as a major driver in creating a surging demand for so-called "critical minerals" necessary to produce clean and renewable energy technologies. A rush of investment announcements in critical minerals, for instance, doubled in the last two years, and more growth is expected (UNCTAD, 2023). Copper consumption in 2050 is expected to be twice that of supply in 2020, while nickel demand is expected to triple. Lithium will see the greatest increase in demand, with a projected 5- to 10-fold increase (IRENA, 2022). The shift to clean energy technology at business-as-usual rate will increase demand for critical minerals even more.

The Mine 2022 Report highlights metrics attesting to this trend: the global top 40 mining corporations exhibited increases by 32% in revenues, 127% in net profits, 7% in market capitalization, 18% in capital expenditures, and 130% in dividends to shareholders in 2021 (PwC, 2022). The report further reveals that miners of critical minerals outperformed the average market capitalization of the top 40 mining companies by 49–147%. This trend is anticipated to persist, given World Bank's (2020) projection of a 500-% increase in demand for energy transition metals and minerals by 2050.

In addition, the Mine 2022 Report shows a threefold surge in the value of mergers and acquisitions (M&A) completed in 2021, along with a 60-% increase in the number of M&A transactions. Among these M&As, 70% were associated with gold mining, as it was seen as a stable investment choice amid the COVID-19 pandemic. However, there has been a growing trend in deals involving critical minerals, commanding a 27-% share of the pie.

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In focus:
Japan's electric vehicle supply chain in the Philippines

A research by the Legal Rights & Natural Resources Center (LRC) and the Business & Human Rights Resource Centre (BHRRC) traced nickel mined in Palawan province, the country's last ecological frontier, to the electric cars produced by automobile and clean energy corporation Tesla (BHRRC, 2023).

The Rio Tuba Nickel Mine is a 4,538-ha Filipino and Japanese mining project producing nickel and cobalt sulphite ores extracted from open-pit mines. It is operated by Nickel Asia Corporation in Bataraza, a municipal coastal town located in the southernmost tip of Palawan.

The nickel ore is processed locally at the Coral Bay processing plant and shipped to Japan for further refining. From the Isoura Plant, owned by Sumitomo MM, high-quality nickel hydroxide, which is used in the manufacturing of cathodes, will be generated. Sumitomo MM, a subsidiary of the Japanese industrial conglomerate Sumitomo, has a 19-% ownership stake in Nickel Asia and a 54-% share in Coral Bay.

Sumitomo MM produces battery materials sold to Panasonic, which has been using mixed metal oxides to manufacture cylindrical lithium-ion rechargeable batteries. Panasonic remains Tesla's longstanding and principal battery manufacturer and was also a key investor in the foundation of Tesla.

Sumitomo MM is reportedly expanding its cathode production for rechargeable batteries specifically for electric vehicles or EVs. It aims to produce 10,000 metric tons by 2028 and 15,000 metric tons by 2031.

Meanwhile, Panasonic's factory, known as the Gigafactory and one of the largest lithium-ion battery factories in the world, is operated in partnership with Tesla in Sparks, Nevada in the United States. Panasonic has announced its development of a higher capacity EV for Tesla slated for production by March 2024. Panasonic continues to maintain its market share in the lithium-ion battery market almost exclusively through its relationship with Tesla.

This mineral supply chain is a continuation of decades-long policy and practice in the Philippine mining industry. In the 1950s and 1960s, Philippine-owned mining corporations, such as Atlas and Marcopper, exported large quantities of minerals to Japan and were regarded the largest copper mine operations in Southeast Asia (Holden, 2005; Ofreneo, 2009). In the 1960s, the Philippines became Asia's largest exporter of copper ores (Lopez, 1992, as cited in Ofreneo, 2009). Japan, amid its depleted and limited copper resource, became the world's largest exporter of copper-based products (Mezger, 1980, as cited in Ofreneo, 2009).

Marcopper, of which Marcos was a key stockholder until he was deposed in 1986, was granted permission to dump mine tailings into the Calancan Bay from 1975 to 1991 (Dizon, 2019), where an estimated 200 million tons of toxic tailings endangered the lives and health of communities. In 1993 and 1996, massive tailings spills also occurred, damaging the major rivers of the island of Marinduque, a critical and sensitive island ecosystem. Later, the 1996 spill would be dubbed as one of the country's greatest mining disaster (Mines and Communities, 2002).

Another observable trend in the report is the increasing integration of mining corporations down the global value chain, as they started establishing processing plants and refineries, or directly partnering with original equipment manufacturers, especially in energy transition technologies, such as Tesla, Ford, and LG.

While the industry is cashing in on opportunities created by the global economic crisis, it did not escape scrutiny from regulators, civil society, and other stakeholders. Resource nationalism is the growing response of governments to the current windfall enjoyed by mining companies, with at least 17 countries reportedly imposing measures, such as increased taxes and royalties, mineral export bans, and increased local processing from 2020 to 2021 (Fitch Solutions, 2021).

The European Union, one of the world's biggest consumers of metals and minerals with a total importation value of USD 33 billion in 2020 (WITS, 2020), is proposing a Corporate Sustainability Due Diligence Directive that will lay down rules and obligations for corporations regarding their potential adverse human rights and environmental impacts, including their subsidiaries and business partners (European Council, 2022).

The Mine 2022 Report notes that in 2021, the US, China, Japan, Malaysia, India, Singapore, and UK demanded more Environmental, Social, and Governance (ESG) accountabilities from mining companies.

As the industry's efforts to address mounting accountabilities over ESG risks have proven insufficient, social conflicts have intensified. A mapping study examining 2,473 cases of environmental conflicts worldwide found that mining was the driver in 21% of the analyzed cases (Scheidel, A., et al, 2020). Similarly, in 2021, a report on killings of land and environmental defenders highlighted mining as the sector linked to the highest number of fatalities, with 26 documented cases (Global Witness, 2022). Premised on weak governance and corruption, the notion of "resource curse" continues to plague many mineral-rich but still developing countries, unmasked by underdevelopment and conflicts brought about by natural resource extraction.

As the world becomes more and more dependent on mining, mining investment remains attractive for foreign shareholders and banks because of its the return on capital and for governments because of its tax revenue (Auty, 2006; Lambrechts, 2009). Hence, it comes as no surprise that the mining industry is exerting all efforts to maintain the status quo to its advantage, providing negligible contribution to communities who bear the brunt of all the risks and hazards of mining operations.

The gold rush created by the pandemic is clearly temporary and only a speculative bubble. The strategic shift toward energy transition metals and an emphasis on ESG is both a survival and a greenwashing strategy meant to reinvent a mining industry that can no longer operate the way it used to, as it faces a pushback for accountability that it can no longer ignore.

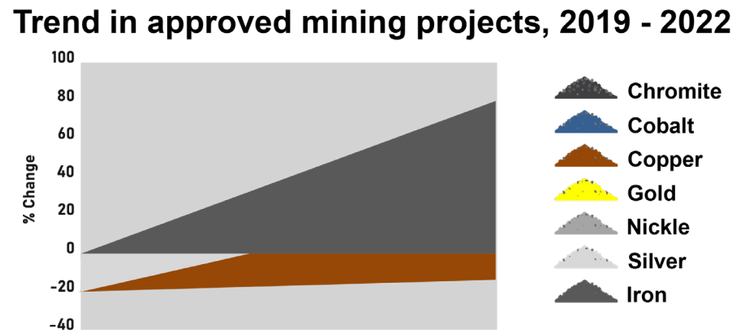
It is in this backdrop of aggressive expansionism amid intensifying crises and conflicts that the mining industry in the Philippines operates.

II. National Situation

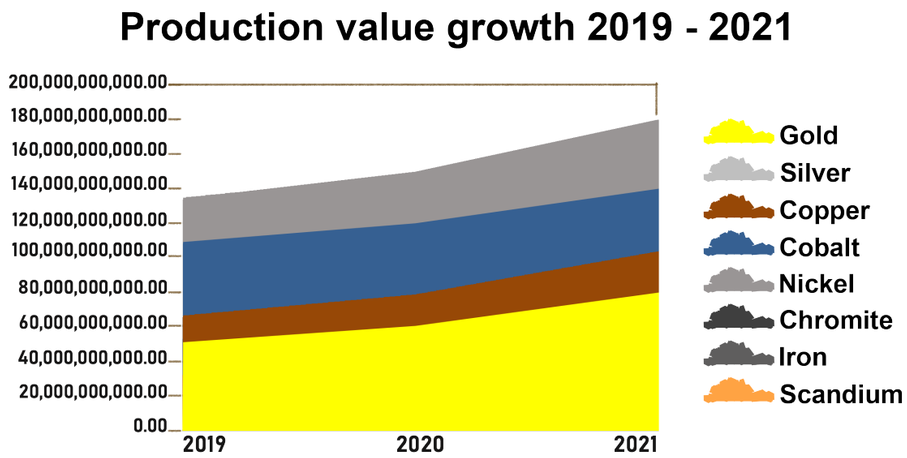
Economic trends

According to the Mines and Geosciences Bureau (MGB), the total worth of untapped mineral wealth in the Philippines stands at USD 840 billion (Senate Economic Planning Office, 2013). These, however, are resources exported out of the country into a global supply chain primarily catering to Japanese, Australian, Canadian, and Chinese mineral demands (MGB, 2022a). In 2022, mineral projects in the country tallied 56 operating metallic mines and 7 processing plants. Of these, there were 33 nickel mines, 12 gold mines, 4 chromite mines, 4 iron mines, and 3 copper mines.

Despite a noticeable dip in 2020 because of the COVID-19 pandemic, data show that mineral production has been steadily driven by gold and nickel from 2019 to 2021 (MGB, 2022b). Copper and cobalt production has stagnated in the same period due to the ban on open-pit mining instituted by former DENR Secretary Gina Lopez. However, the lifting of the ban in 2021 is expected to spur the production of these minerals toward 2025 (Mining Technology, 2022). Silver and iron ore, meanwhile, have already bounced back from the pandemic slowdown by the end of 2021.



Change in production value, meanwhile, is riding high on the global windfall. While gold still contributes the biggest value generation, nickel has marked the biggest percentage growth of 77% (compared to gold registering 52%) between 2019 and 2021. This global trend of surging demand for energy transition minerals is significantly driven by importation from China for the production of electric vehicle batteries (Cahiles-Magkilat, 2023).



In focus: "Green metals" in the Bangsamoro region

Little is known of the mineral potential in the Bangsamoro Autonomous Region of Muslim Mindanao (BARMM), as decades of conflict have previously prevented the exploration of its lands. A USAID (n.d.) draft scoping study on extractive industry governance and transparency in the Bangsamoro monitored up to 12 mining companies that were previously issued exploration permits and mineral production sharing agreements between 2007 and 2010, covering up to 54,785 ha of lands. The study notes that the provinces of Tawi-Tawi, Maguindanao, and Sulu all had both known and potential reserves of nickel, copper, gold, silver, magnesium, zinc, iron, coal, limestone, and sand and gravel, among others.

In 2022, the Philippine Statistics Authority reported that mining and quarrying registered the second-fastest growth among the region's various economic sectors with a 20.2-% rate (Tula, 2022). At least three large-scale mining projects are currently operating in Sulu and Tawi-Tawi (Cariaso, 2023).

Indicative of the policy trajectory for mining in the Bangsamoro is the recent benchmarking conducted by the Philippine Economic Zone Authority (PEZA) for BARMM representatives toward the establishment of their own economic zones under the Bangsamoro Economic Zone Authority (BEZA). Among the ecozones envisioned for BARMM are mineral processing for so-called "green metals" (PEZA, 2022). The Bureau of Investments describes these metals (i.e., nickel, cobalt, and copper) as necessary for clean energy development (BOI, 2022).

Special Economic Zones are governed by The the Special Economic Zone Act, which enables foreign entities and enterprises to enter in "mutually beneficial economic relations" with the domestic government and affords "protection of their assets, profits, and other legitimate interests." It further designates the military to secure the ecozone as well as mandates the PEZA to establish internal security forces. It also provides fiscal incentives, tax exemptions, and other economic benefits to businesses within the ecozone.

The USAID (n.d.) report also notes a series of reports and pronouncements by previous Bangsamoro authorities of mineral deposits found within the municipality of Upi, Maguindanao, where the lack of community consultation and permits in the sampling activities was the subject of complaints made by the Teduray, Lambangian, and Dulangan Manobo ancestral domain claimants. A technical report by the BARMM MENRE (2021) shows that Upi has gold, copper, zinc, limestone, and aggregates.

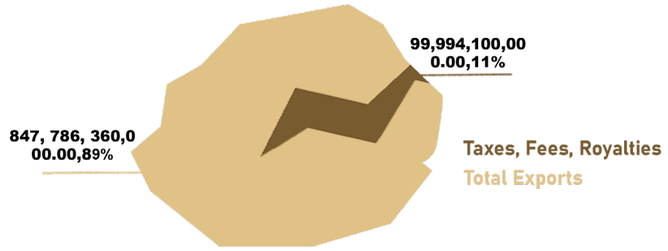
Mining was touted as a contributor to economic recovery amid the pandemic (Beltran, 2021), and, from 2019 to 2021, data showed a total mineral export value of PHP 847 billion, posing a 14-% average annual increase in the said time period (MGB 2022c). However, for every PHP 10 worth of exported mineral production value, only a little over PHP 1 (or 11%) trickled down back to the domestic economy in the form of taxes, fees, and royalties.

Likewise, from 2020 to 2022, mining only contributed an average of 1% to the country's GDP growth and 0.45% to total employment. In comparison, the agriculture sector's contribution to GDP and employment averaged at 10% and 24%, respectively, in the same period. These numbers are no different from the industry's performance in the 1970s when, while it accounted for a significant amount of the country's exports at 20.76%, it merely attributed 1.15% of gross value added to the GDP (Israel, 2011).

At the municipal or local level, contribution from mining has also been negligible if not contentious. For instance, the Social Development and Management Program (SDMP), which aims to improve "the living standards of host and neighboring communities by creating responsible, self-reliant, and resource-based communities capable of developing, implementing, and managing community development programs, projects, and activities in a manner consistent with the principles of sustainable development," has been found insignificant in the development of local communities. Percentage of SDMP to operating income of mining companies has been found to be miniscule (Ragos, n.d.).

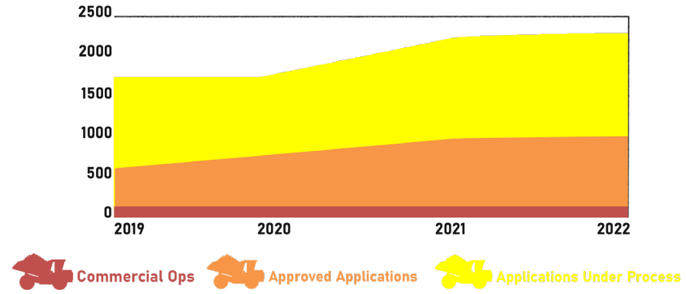
SDMP-allocated resources are essential expenditures for mining companies, typically left to their discretion. Because these are direct expenditures by the companies and not covered by the government's Commission on Audit, public monitoring of how the funds are used is not available. This situation raises concerns, in light of reports from affected communities where the SDMP is used to influence local government and conflated with corporate social responsibility to engender social acceptability of mining operations.

Mining export vs. taxes, fees, and royalties, 2019 – 2021



The number of pending, approved, and commercially operating mining projects had similarly increased in 2021 by 14%. Comparing area size data between 2021 and 2023, an 8-% increase from a total of 838,366 ha to 904,918 ha is also evident.

Trend in approved mining projects, 2019 - 2022



[2] Republic Act No. 7916 Sec. 7
[3] Republic Act No. 7916 Sec. 9
[4] Republic Act No. 7916 Sec. 23, 24 and 42

The EO cited supposed reforms, such as the doubling of excise tax collection of minerals, mineral products, and quarry resources by virtue of the Tax Reform for Acceleration and Inclusion (TRAIN) Act, and the supposed review of DENR's mining regulatory regime, as basis for lifting the moratorium provisions provided by the EO 79 s. 2012 issued by the Aquino administration.

This was followed by DAO No. 2021-40 that lifted the ban on the open-pit mining method imposed by DAO No. 2017-10. The lifting of the ban sought to rationalize open-pit mining as a globally accepted method of mining with no issues attributable to the method itself. Similarly, the move was also touted by the Department of Finance as a strategy to revitalize the economy amid the country's recovery from the pandemic (DOF, 2021).

However, the claim that fiscal and environmental reforms in the mining policy regime have ushered in an era of mine safety and economic development does not reflect the reality, as outlined in the previous sections of the paper (e.g., negligible mining contributions to economy). Economic planners and managers failed to articulate just how much mining revenue was needed, cumulative to other revenue sources, to achieve post-pandemic economic recovery.

They also failed to demonstrate a comprehensive cost-benefit analysis of ramping up mining projects vis-à-vis how little actual revenue trickles down the domestic economy, as compared to economic losses in affected sectors, such as agriculture, forestry, fisheries, and tourism, among others.

Every stage of extraction, processing, use, and disposal of metals and minerals results in outputs (releases) to the environment. All metal and mineral flows, except for those that are used to build long-lasting infrastructure, eventually leave the economy, especially for applications related to durable consumer goods. A study conducted by the US Geological Society (2008, p. 10) found that the "ancillary, or hidden, material flows associated with extraction, concentration, and processing constitute far greater quantities than the commodities for many commodity flows," and that "the quantity of waste for all the commodities was calculated to be about four times the weight of the mineral commodities extracted, excluding overburden removal. It also exceeded 3 billion tons globally that year (i.e., 2004), a significant quantity considering that much of this waste is far from benign in its potential effects on the environment, including human health." It concluded that with the declining grades of available ore, the waste flow is increasing faster than the commodity extraction.

In focus: South Cotabato Environment Code

In a decision dated August 22, 2022, the Court of Appeals (CA) ruled on the validity of the South Cotabato provincial government's Environment Code, which previously imposed a ban on the use of open-pit mining method. The CA upheld the Environment Code but declared that the open-pit mining ban is only applicable to small-scale miners and not to large-scale mines, particularly the Tampakan Copper-Gold Mining Project.

To recall, the 26,501-ha mining project with a 9,605-ha Declaration of Mining Project Feasibility (DMPF) area traverses the quadriboundary of the provinces of Davao del Sur, Sultan Kudarat, Sarangani, and South Cotabato. The Sagittarius Mines Inc., which owns the Tampakan Project, has declared that they have discovered around 2.94 billion tons of mineral ores, including potential 15 million tons of copper and 17.6 million ounces of gold, making it one of the largest untapped mineral reserves in Southeast Asia.

The Tampakan Project's Environmental Impact Statement (EIS) declared that it would be using open-pit mining techniques, including drilling, blasting of waste rocks, shovel excavators, and mine haulage trucks.

The CA decision clearly recognized the police powers of local governments, particularly to ensure and support, among other things, the preservation and enrichment of culture, promote health and safety, and enhance the right of the people to a balanced ecology, as granted in the Local Government Code.

This regulatory role is part of the national-level mineral and resource governance law and, hence, cannot be limited to just small-scale mining projects. As such, it was seen that the local government units affected by the Tampakan mine were well within their mandate to push back against the CA decision by asserting their local powers.

Consequences

What would be the consequences of allowing the Tampakan open-pit mine to push through? Open-pit mining undeniably entails massive land disturbance that can cause air pollution, water depletion, land disturbance, soil erosion, floods, and landslides, among others. It also generates acid mine drainage or highly acidic water full of toxic heavy metals harmful to humans and other living organisms (Koscova et al., 2018).

The Tampakan EIS listed six water catchment areas that will be directly affected by their mining project (i.e., the Atlayan, Taplan, Dalul, Mal, Mainit, and Manteo catchments). These are part of two major watersheds: the 122,659-ha Marbel-Buluan Watershed and the 120,213-ha Padada River Watershed. Further downstream from the Marbel-Buluan Watershed is the 742,858-ha Catisan Allah Watershed. These water catchments support the irrigation and agricultural production of the region dubbed as the Food Basket of the South.

The EIS also said that about 3,935 ha of vegetation will be directly cleared. This is home to high-species biodiversity, including 1,087 morpho-species of flora and 289 species of fauna. In the Philippines, 30% of the plant species are endemic, and over 50 species are identified as threatened under the National List of Threatened Philippine Plants and their Categories (DAO 2007-01) and 2009 IUCN Red List of Threatened Species. Meanwhile, 146 of the wildlife species represent at least 50% of the known endemics in the Mindanao bioregion.

The EIS analysis of alternatives to the project declared that the "no project" option would entail lost economic opportunities, including PHP 290 billion in terms of local and national taxes and royalties, and PHP 1.85 trillion in revenue streams throughout the project's 20-year mine life.

In 2017, the DENR cancelled Tampakan's Environmental Compliance Certificate (ECC), along with other 74 mining contracts that covered watershed areas.

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[7] Province of South Cotabato Ordinance Resolution No. 84, s. 2010
[6] CA-G.R. CV No. 05863-MIN
[8] Sections 447 and 448 of RA 7160

In comparison, recent estimations of watershed forest values for the projected direct vegetation loss reach up to PHP 291 billion in the same time span, offsetting any gains to be generated for government and communities. In addition, the 32,596-ha of forest cover in the Marbel-Buluan Watershed alone, which will directly be impacted by water depletion and diversion entailed by the project, is valued at PHP 2.41 trillion over the 20-year period.

Should a mine spill occur from the project's proposed 1.35 Billion-tonne tailings storage facility, the damages it can generate can cost up to PHP 7.65 trillion based on the per metric ton average damages ordered by courts in the infamous Samarco mine disaster in Minas Gerais, Brazil, back in 2015 (Boadle & Eisenhammer, 2016). This is four times the amount promised by Tampakan for revenues.

If the risks are greater than the promised benefits, public authorities should not allow any mine to proceed, regardless of its proposed mitigating measures, given the scale of operations and consequent impacts necessitated by open-pit mining in a particular area.

A new fiscal regime

Directly contradicting the claim that the additional taxes imposed by the TRAIN Law is already sufficient to lift the mining moratorium is Marcos Jr.'s prioritization of the need for a "rationalized" mining fiscal regime during his 2023 State of the Nation Address (PCIJ, 2023). This implies that the current financial measures imposed on the mining industry is deemed inadequate. The current mining tax of 4% (2% as prescribed by RA 7942 and 2% as prescribed by the TRAIN Law) does not provide for equitable wealth sharing. A cursory glance at the total effective tax rates of countries engaged in copper mining, for example, reveals that the Philippines actually belongs to the second lowest taxing quintile—45.3% to Canada's 63.8% in the highest quintile (Otto, 2004).

The latest mining fiscal regime policy recently passed by the House of Representatives Ways and Means Committee (Cruz, 2023; Sarmiento, 2023) subjects mineral reservations with a 3-% royalty tax of the gross output of minerals and mineral products extracted, a reduction from the previous 5%. Meanwhile, mining operations outside reservations will be subjected to a margin-based royalty tax on their income for up to a maximum of 5%. Profit-based royalties are a significant departure from the output-based system. Under profit-based system, corporations utilizing finite natural resources will only be required to pay a royalty for the use of publicly owned minerals after making a profit from the activity. A windfall profits tax will also be imposed, ranging from 1 to 10% beginning at 35% of profit (highest at above 70% margin still to be taxed at only 10%), notably low compared to other jurisdictions (with as much as 30% imposed). What this implies is that tax will only be imposed once corporations are ensured of at least 35% profit margin. It does not provide for an export tax.

These rates are inadequate, failing to consider the potential adverse effects or negative "externalities" (or spillovers) of mining operations. Under this scenario, the involuntary costs are deemed imposed on others, especially the impacted communities and the government, rather than those directly responsible for the effects. In other words, for the mining fiscal regime to be truly equitable, these costs must be fully accounted for.

[9] By reducing mining royalties to 3%, whatever mining collection that inures to communities that are facing the brunt of the environmental and socioeconomic impacts caused by mining operations is also reduced. This will also impact on the expected revenues where the projects are still in the exploration stage.

[10] The high threshold set by the bill purports to capture windfall income incentivizes profiteering and ensures profits by corporations. The 35-% margin to initiate windfall tax imposition is high a range. At the peak of gold prices in the global market (2021), OceanaGold posted a profit margin of 17%. This means that even at peak global market price, it is unlikely that the government can collect windfall taxes.

House Bill No. 8937 (Act Enhancing The Fiscal Regime for the Mining Industry) is a substitute bill that is a drastic departure from the previous version. It aims to raise the country's effective tax rate on mining from 38% to 51%. It will also impose a 5-% royalty tax on the market value of the gross output of large-scale mining projects. It will also designate a 60-% minimum government share of the net mining revenues, as well as add a 10-% export tax on the market value of mineral ore exports (Rivera, 2022).

A survey of African cases shows that companies' tax contributions to the government were found to have a higher economic impact than the purported direct social benefits they provided to communities. Mining companies provided social services to the communities in which they operate mainly to gain social acceptance. These social services comprised a negligible fraction of the company's overall sales and were insufficient to offset the government's potential tax collection (Lambrechts, 2009). Moreover, investments for marginal or exploration initiatives at the expense of tax revenue did not impact on development, especially because these projects rarely had positive social and economic effects on local communities.

Questions have also been raised on mining as a potential revenue source and investment destination of the Maharlika Investment Fund or MIF (Dumlao-Abadilla, 2023). Among the sources identified for initial capitalization of the controversial sovereign wealth fund include royalties based on the national government's fiscal regime. The MIF, thus, becomes both a driver of mining capital expansion to generate more revenue from which it can source funds and a possible sink hole of mining revenue subject to the volatile risks of the global boom and bust economy.

Mineral production and money flow in the country are not guarantees of social and economic progress. The proceeds from extraction should be invested in social and economic activities that will benefit the country's present and future generations. These resources should not be viewed solely as revenue sources or mere capital; instead, they should be regarded as an integral part of the national patrimony, used to foster sustainable economic activities and diversify the economy. They should serve a broader purpose beyond being a routine contribution to the government's annual budget (Stevens et al., 2015). The current direction for the mining fiscal regime is clearly geared toward rapid exploitation of the country's natural resources. An inequitable revenue structure coupled with weak regulatory mechanisms will only perpetuate an extractivist system to the detriment of communities and peoples' right to balanced and healthy ecology.

Green lanes for green metals

The Marcos Jr. administration has begun to court foreign investments not only for the mining of energy transition metals but also for the development of local processing as part the electric vehicle supply chain. During the World Economic Forum in early 2023, Marcos Jr. himself met with the chief executive of Glencore to discuss the company's interests in expanding mining and processing operations in the country for the manufacturing of electric vehicle batteries (Gita-Carlos, 2023).

Glencore is one of the world's biggest multinational mining corporations based in Switzerland, with a notorious human rights track record in the Philippines and around the world (Squazzin, 2022). According to BHRRC (2022), Glencore accounted for 64 out of the 495 monitored allegations of human rights abuses from 2010 to 2021, ranging from attacks against activists and defenders to environmental violations to displacement of entire communities. In the Philippines, at least 10 land and environmental defenders (Chavez, 2020) and up to 24 people (Sarmiento, 2022a) were killed amid the complex conflict situation surrounding the Tampakan mining project, once an asset of Glencore until it sold its stake.

[11] Republic Act No. 11954 Sec. 6 (2) (d)

In 2015, Glencore sold its stake in Sagittarius Mining Inc. (SMI) to Indophil Resources Phils. Inc., a domestic corporation that now owns 100% of the common shares of SMI and holds full economic control of the company (SMI, n.d.). Earlier in the same year, the Alcantara's Alsons Group acquired Indophil's interest (Rappler, 2015). This illustrates the increasing presence of domestic business interest in the extractive industry.

TNCs used to dominate the mining industry in the Philippines and, while they remain to be significant operators, the recent years have seen an increasing trend in domestic corporate interest. Four out of the five best-performing Philippine mining stocks in 2022 were Filipino corporations (Ong, 2022), among them were Nickel Asia of the Zamora group, Semirara Mining of the DMCI-Consunji group, and Atlas Mining of the National Bookstore-Ramos and SM-Sy groups. With the general trend of price increase of mineral commodities, the Department of Finance expects more mining applications even as a new fiscal regime is put in place (Simeon, 2022).

Instead of bolstering the regulatory regime to fit the highest human rights, safety, and sustainability standards in anticipation of the energy transition-driven mining boom, the Marcos Jr. administration issued EO No. 18 s. 2023 (Sec. 2), which created 'green lanes' for strategic investments. This will streamline and fast-track the processes and requirements for the issuance of permits and licenses. Among the industries that the EO will affect are those under the Strategic Investment Priority Plan, which includes capital equipment in mining and the processing of green metals, such as copper, cobalt, and nickel.

Currently, tensions are brewing in nickel and copper-gold mine sites as a result of the boom. In the provinces of Romblon (Gozum, 2023), Palawan (Cabico, 2023a), and Benguet (De Vera, 2022), there are ongoing people's barricades against shipping, drilling, and mining development activities. Protests were also held by church groups against nickel and copper-gold mines in Davao Oriental (Zuasola, 2023), South Cotabato (Sarmiento, 2022b), and Eastern Samar (Gabieta, 2023).

In Palawan and Romblon, the mining projects of the Ipilan Nickel Corporation and the Altai Philippines Mining Corporation, respectively, overlap or are in proximity to the Mt. Mantalingahan Protected Landscape and the Mt. Guiting-Guiting Natural Park, both protected landscapes by virtue of the National Integrated Protected Areas System Act.

The mining projects in Benguet, South Cotabato, and Palawan, meanwhile, are all illegally occupying indigenous peoples' territories.

In focus: Nickel mining in Candelaria, Zambales

The municipality of Candelaria is a popular coastal tourism destination in the province of Zambales with the Uacon Lake, a saltwater lake directly connected to the West Philippine Sea and known as the cleanest lake in Central Luzon, as its central attraction (Macatuno, 2015).

The town, however, is also one of the mining hotspots in Zambales, with at least three mineral production-sharing agreements, covering 11,817 ha according to latest records of the MGB (2023). Two of these are nickel mines already commercially operating, while the third is still in the exploration stage prospecting for nickel and chromite.

Yinglong Steel Corporation, another nickel mining company, was found to have illegally mined already up to 88 ha of mineralized lands within Candelaria's boundaries, which are beyond the mine's permitted area limited only to the neighboring town of Sta. Cruz

Uacon Lake is now becoming a dumpsite of mine tailings and other discharges emanating from the various operating mines. An assessment of heavy metals bioaccumulation in mollusks found in mangroves contaminated by mining effluents in the lake reveals that heavy metal concentrations exceeded ecological thresholds by 182% for nickel, 685% for copper, and 234% for chromium (Marbella, 2020).

Another impact assessment in Uacon shows severe levels of nickel and chromium concentrations in the sediments, and high nickel, iron, and chromium accumulation in clams, especially in sampling sites directly downstream of the mining operations in Candelaria (Juganas et al., 2022). Alarmingly, the assessment further reports that heavy metal accumulation in rice grains of rice paddies fed with mining-contaminated irrigation was above safe levels.

It is no wonder that mining operations in Candelaria have been the subject of protests as far back as 2014. In 2016, 400 residents in Barangay Uacon initiated a people's barricade that halted trucks shipping ore but was violently dispersed resulting in the arrest of 11 protesters.

Earlier, in January 2023, Yinlong attempted to ship out 250,000 metric tons of laterite nickel ore to China but was stopped by the Bureau of Customs for its various illegalities.

Despite calls for reforming the mining regime, there is mounting concern that history will repeat itself, if not simply continue, to benefit mainly the business elites (Nikkei Asia, 2022). In the case of artisanal small-scale mining, for example, a study finds that Chinese firms opted to work with local elites as conduits for their FDI and equity (Camba, 2020). Case studies also show governors, mayors, and representatives tending to extract resources illicitly to sell on the domestic or international market, or facilitate the permits for mining (Broad, 1995; Camba, 2019; Sidel, 1999 in Camba, 2020). In these cases, the People's Small-Scale Mining Act (RA 7076) and DAO No. 2015-03, which provided local government units the power to decide on licenses, were taken advantage of.

Both in small- and large-scale projects, mining continues to contribute to the economic accumulation and, in some cases, the political legitimation of Philippine elites, illustrating the thin line between economic and political interests in the extractive industry (Wurfel, 2006; Philippine Star, 2017). As observed by Mendoza et al. (2022, p. 6): "When political power is rewarding and leads to exclusive access to natural resources and/or similar rent-seeking activities, there are more incentives for elites to hold on to power."

Human rights

Mining continues to be a major driver of human rights violations among affected communities, especially targeting environmental defenders. The latest Global Witness (2022) report, once again, puts the Philippines at the top of its list as the deadliest country for environmental defenders in Asia and fourth deadliest globally. Mining was the sector most linked to killings of defenders around the world, in which the Philippines came in second with six defenders opposing mining projects recorded in 2021.

Particularly for indigenous peoples, mining and quarrying have been associated with 15 cases of extrajudicial killings, accounting for 33% of the total incidents monitored from 2019 to 2021 (LRC, 2022).

[12] Memorandum Order No. 61 s. 2022

This persisting impunity against anti-mining activists exists in a backdrop of broader human rights abuses. Repressive policies and programs from the Duterte regime persist under the Marcos Jr. administration. The National Task Force to End Local Communist Armed Conflict, for example, continue to red-tag and harass human rights defenders, including indigenous peoples (Cabico, 2023b).

The preferential securing of business is also just a continuation of policies adopted from previous administrations. For example, Gloria Macapagal-Arroyo, to secure so-called development projects including mining, created a special army unit called "investment defense force" (Reuters, 2008). Under Benigno Aquino III, the military expressed the necessity for paramilitary groups to secure mining firms (ABS CBN, 2011; ICMM, n.d.). A government-backed militia called the special civilian active auxiliary, for instance, continues to operate today.

Human rights groups have also raised the alarm over a spike of enforced disappearances or desaparecidos, at least four of whom are indigenous community organizers and advocates (Dela Pena, 2023). This follows the recent pattern of military operations against communist rebels, indicating that civilian activists are likely not being differentiated.

Even after delivering two State of the Nation Addresses, Marcos Jr. remains silent on human rights violations while advocating the expansion of mining operations in the name of energy transition, portending deadly times ahead for communities in mineral-rich areas across the country.

III. Conclusion and Recommendations

The revitalization of the mining industry under the second coming of the Marcos dynasty may be the most dangerous yet. It deceptively comes with the trappings and rhetoric of building an energy transition in response to the climate crisis. The 'green metals' packaging of the Marcos Jr. administration appears to be nothing more than greenwashing, as the export-oriented, extractivist, and conflict-laden model of mining persists underneath the veneer.

Concrete plans for the prudent utilization and regulation of mineral production, in line with the collective needs and the common future of Filipinos, especially the host communities burdened by mining conflicts, remain conspicuously absent. No amount of fiscal regime reforms would lead to socioeconomic reforms if both mineral extraction and the revenues it generates do not circulate in the domestic economy and ultimately redound to actual development and just transition for host communities.

Simply extracting minerals does not support national development. The overall mining policy must encourage domestic downstream processing that serves better the interests of the country. More than simply raising tax rates and imposing new taxes, the national strategy must be linked to the development of downstream industry to ensure national utilization and advantage from the extraction of the nation's finite mineral resources, while securing the country's ecological health and paying crucial attention to mining risks and community rights. A critical and robust cost-benefit analysis must be undertaken before mining explorations and operations proceed at a pace that may, in the long run, cause irreversible damage. Afterall, every extractive operation necessarily entails the destruction of other natural resources.

Moreover, there are still no clear pathways for energy transition in the country that would determine the adequate quantity of minerals needed for the country to achieve a decarbonized future. Equally lacking is a clear framework for determining the extent of our contribution to nations aspiring for a just energy transition through a solidarity economy approach.

By remaining under the prescriptions of the global mineral value chains of transnational and multinational corporations, any present mineral production will be driven by profit instead of being guided by planetary boundaries and real human needs. With 89% of annual mineral wealth generation of the country going straight to foreign markets, every year that the Philippine mining industry operates at a business-as-usual pace denies Filipinos of their right to reach their full potential and to grow resilient amid the climate crisis.

The mining moratorium must be reinstated. Considering that the justifications previously cited for lifting the moratorium on new mining projects have been deemed lacking in the findings of this report, it is incumbent upon the Marcos Jr. administration to return the cap on mining approval until robust ecological, social, and economic safeguards are put into place.

The mineral demand for energy transition is not a temporary windfall but a strategic direction that will not fade away anytime soon. On the other hand, a 'gold rush' can potentially leave mining-affected communities—and, consequently, our national economy—in a state of irreversible ecological collapse that will threaten any prospect for development.

The Philippine government should take its time to meticulously develop a 'fitness test' for mining projects in the country based on the complex and cumulative geomorphological, ecological, hydrological, socio-political, and cultural realities on the ground. This can be in the particular form of strengthening the country's EIS system to mainstream a watershed and human rights-based approach in risk assessment, ecosystems valuation, and cost-benefit analysis, among others.

A new minerals management law is long overdue. The Philippines needs a mining policy that actively interrogates and addresses the detrimental ecological effects of mining, especially in the context of the climate emergency as a threat multiplier. There should be mechanisms to reduce and track these negative externalities.

In addition, the economic gain from mining must be enough to justify the ecological and social risks brought about by the influx of extractive activities. Royalties, taxes, the employment of Filipino workers under just and equitable conditions, and mandated contributions to the local economy—in particular to strategic industries needed for genuine development—must be ensured.

The Alternative Minerals Management Bill (AMMB), currently filed as Senate Bill No. 376, presents a policy opportunity to address the economic, ecological, and social issues caused by the mining industry. This bill aims to transform the country's mining policy into a framework of national industrialization and democratized governance by only allowing mining under conditions that are not detrimental to our people, environment, and economy.

The national policy must enable the creation of backward and forward linkages, including the promotion of downstream processing in the country. Beyond simply increasing tax rates and imposing new taxes, a fiscal policy tied to the development of downstream industries is warranted. This integration is essential to ensure that the country can fully capitalize on the extraction of its non-renewable resources and reap maximum benefits. What has become apparent through the years is that export-oriented and extractivist minerals policies do not benefit but rather harm national development.

Under the AMMB, headwaters of watersheds, critical watersheds, critical habitats, climate disaster-prone areas, geohazard areas, key biodiversity areas, prime agricultural lands, old growth, natural or primary and secondary forests, watershed forest reserves, and wilderness areas, among others, are classified as no-go zones for mining activities. The bill also mandates corporations to allocate funds for post-mining rehabilitation. Most importantly, it completely disallows open-pit mining.

The bill also puts an emphasis on increasing the role of communities in the decision-making process. It mandates the formation of Multi-Sectoral Minerals Councils and Indigenous People's Council to increase the power and voice of affected communities and stakeholders in the decision-making process. The bill also places a special emphasis on the recognition of the rights of indigenous peoples and observance of human rights by increasing fines and other penalties for environmental and human rights violations.

The AMMB is anchored on the climate justice discourse and rationalizes mining under a national industrialization framework, where only strategic minerals will be mined. It captures the framework of Just Minerals Transition (LRC, 2023), where mineral production is based on the need for social wellbeing and within ecological limits; governance of minerals is democratized, where affected communities ultimately decide; circularity of minerals through recycling is baked in; and due diligence mechanisms for holding mineral sources accountable are in place.

Local communities must assert their rights and demand accountability. That there are active protest movements across at least six provinces over the past year provides reassurance that there will always be individuals and communities willing to stand firm and hold the line in the face of mining expansionism. Direct actions and protest movements effectively complement judicial and policy interventions, especially those localized to the provincial level, as the interplay of legal and meta-legal interventions feeds off each other.

In the case of the barricades in the provinces of Sibuyan and Palawan, direct actions were anchored on clearly assessed illegalities perpetrated by mining companies, such as the lack of permits and anomalies in mining development processes. Sibuyan barricaders also pushed for a peoples' initiative to pass a mining moratorium ordinance in their municipality (Bayay Sibuyanon, 2023).

In Benguet, indigenous Kankanaey communities and their indigenous peoples mandatory representative launched their barricade anchored on their free, prior, and informed consent (FPIC) rights, as enshrined in the Indigenous Peoples Rights Act, to stop the mining exploration activities. The barricade in Palawan similarly cited deficiencies in the FPIC process.

In parallel, good governance is a crucial component in ensuring mining contributes not only to the national economy but, more importantly, in the context of a warming planet, to sustainable development. The idea of resource curse has developed precisely out of the corruption and irregularities surrounding mining and the insecurity that emanates from conflicts around natural resource extraction. Therefore, if mining resources is to convert into meaningful development, a stringent and transparent mining regulation and overall natural resources governance must be in place.

Lastly, measures must be made to put communities, marginalized groups, and local stakeholders at the forefront of the decision-making process. These populations hold both the knowledge of the area, as well as the highest interest in the land, motivating them to make sustainability-driven decisions not only regarding the environment but also with respect to their culture, traditional economies, and overall health and wellbeing.

References

Australian Trade & Investment Commission. (n.d.). Export markets - Philippines. Retrieved December 7, 2021, from https://www.austrade.gov.au/australian/export/export-markets/countries/philippines/industries/mining

Auty, R. (2006). Mining enclave to economic catalyst: Large mineral projects in developing countries. Brown Journal of World Affairs, 13(1), 135-145. http://0search.ebscohost.com.ilsprod.lib.neu.edu/login.aspx?direct=true&db=aph&AN=24443151&site=eds-live.

[BARMM MENRE] Bangsamoro Autonomous Region of Muslim Mindanao Ministry of Environment, Natural Resources and Energy. (2021). Technical Report on the Geological Mapping of the Municipality of Upi, Province of Maguindanao.

Bayay Sibuyanon. (2023, March 8). Sibuyan residents push mining moratorium ordinance through people's initiative. Philippine Information Agency. https://pia.gov.ph/press-releases/2023/03/08/sibuyan-residents-push-mining-moratorium-ordinance-through-peoples-initiative

Beltran, B. B. (2021). Philippine mining: A contributor to economic recovery. BusinessWorld Online. https://www.bworldonline.com/features/2021/02/24/349413/philippine-mining-a-contributor-to-economic-recovery/

[BHRRC] Business & Human Rights Resource Centre. (2022, May 11). Transition Minerals Tracker: Global analysis of human rights in the energy transition - Business & Human Rights Resource Centre. Retrieved from https://www.business-humanrights.org/en/from-us/briefings/tmt-2021/

[BHRRC] Business and Human Rights Resource Centre. (2023 May). Powering electric vehicles: Human rights and environmental abuses in Southeast Asia's nickel supply chains.

Boadle, A., & Eisenhammer, S. (2016, March 3). Vale/BHP's Samarco to pay $5.1 billion in damages for dam disaster. U.S. https://www.reuters.com/article/us-brazil-damburst-deal/vale-bhps-samarco-to-pay-5-1-billion-in-damages-for-dam-disaster-idUSKCN0W42WP

BOI, nickel industry to pursue value added production. (2022, June 3). Manila Bulletin. https://mb.com.ph/2022/06/03/boi-nickel-industry-to-pursue-value-added-production/?amp

Broad. (1995)

Cabico, G. K. (2023a). Following Sibuyanons' lead, Brooke's Point folk set up barricade vs mining. Philstar.com. https://www.philstar.com/headlines/climate-and-environment/2023/02/21/2246505/following-sibuyanons-lead-brookes-point-folk-set-barricade-vs-mining

Cabico, G. K. (2023b). Red-tagging used to harass, threaten IPs opposed to gov't-backed projects — groups. Philstar.com. https://www.philstar.com/headlines/climate-and-environment/2023/01/26/2240392/red-tagging-used-harass-threaten-ips-opposed-govt-backed-projects-groups

Chiles-Magkilat, B. (2023, January 6). Chinese firms to invest $7.32 B in nickel, EV, steel, electronics ventures in PH. Manila Bulletin. https://mb.com.ph/2023/01/06/chinese-firms-to-invest-7-32-b-in-nickel-ev-steel-electronics-ventures-in-ph/

Camba, A.A. (2015). From colonialism to neoliberalism: Critical reflections on Philippine mining in the “long twentieth century”. The Extractive Industries and Society, 2(2), p. 287–301. https://www.sciencedirect.com/science/article/abs/pii/S2214790X15000507?via%3Dihub.

Camba, A., Tritto, A., & Silaban, M. (2020). From the postwar era to intensified Chinese intervention: Variegated extractive regimes in the Philippines and Indonesia. The Extractive Industries and Society, 7(3), 1054–1065. https://doi.org/10.1016/j.exis.2020.07.008

Camba, A. (2022). The oligarchs likely to benefit most under Bongbong Marcos. Nikkei Asia. https://asia.nikkei.com/Opinion/The-oligarchs-likely-to-benefit-most-under-Bongbong-Marcos

Cariaso, B. (2023, February 6). BARMM eyes more mining projects. The Manila Times. https://www.manilatimes.net/2023/02/06/news/national/barmm-eyes-more-mining-projects/1877328

Chavez, L. (2020, March 9). The fight goes on for opponents of a Philippine mine given a new lease on life. Mongabay Environmental News. https://news.mongabay.com/2020/03/the-fight-goes-on-for-opponents-of-a-philippine-mine-given-a-new-lease-on-life/

Coumans, C. (2002, April 15). Case study on Marcopper Mining and the Marinduque disaster. MAC: Mines and Communities. http://www.minesandcommunities.org/article.php?a=1445

Cruz, B. M. (2023). Panel OK’s mining fiscal regime bill. BusinessWorld Online. https://www.bworldonline.com/top-stories/2023/08/03/537511/panel-oks-mining-fiscal-regime-bill/

Dela Peña, K. (2023, May 30). Enforced disappearances of activists show assault on freedoms continues | Inquirer News. INQUIRER.net. https://newsinfo.inquirer.net/1777073/enforced-disappearances-of-activists-show-assault-on-freedoms-continues

De Vera, S. (2022, June 28). Kankanaey officials, community remain barricaded against Benguet mine exploration. RAPPLER. https://www.rappler.com/nation/indigenous-peoples-officials-community-sustain-barricade-mine-exploration-benguet/

[DENR] Department of Environment and Natural Resources (DENR). (2017). Lopez orders closure of 23 metallic mines. https://denr.gov.ph/index.php/news-events/press-releases/520-lopez-orders-closure-of-23-metallic-mines (accessed on 19 September 2023).

Dizon, N. (2019, April 3). The Marcopper disaster: A tragedy that continues in people’s veins. VERA Files. https://verafiles.org/articles/marcopper-disaster-tragedy-continues-peoples-veins

[DOF] Department of Finance. (2021, December 31). DOF backs DENR move to lift ban on open-pit mining - Department of Finance. https://www.dof.gov.ph/dof-backs-denr-move-to-lift-ban-on-open-pit-mining/

Dumlao-Abadilla, D. (2023, January 19). Mining sector earnings also eyed to fund Maharlika | Inquirer Business. INQUIRER.net. https://business.inquirer.net/382950/mining-sector-earnings-also-eyed-to-fund-maharlika

European Commission. (2022). Corporate sustainability due diligence. Commission.europa.eu. https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en

Fitch Solutions. (2021). Mining Resource Nationalism 2021 Flare Up To Continue, Posing Risks To Projects Cycle. https://www.fitchsolutions.com/mining/mining-resource-nationalism-2021-flare-continue-posing-risks-projects-cycle-15-10-2021

French, L. (2021, August 31). DENR chief signs implementing rules of EO No. 130. PIA. https://pia.gov.ph/press-releases/2021/08/31/denr-chief-signs-implementing-rules-of-eo-no-130

Gabieta, J. (2023, August 9). Bishop leads protest vs mining in Eastern Samar | Inquirer News. INQUIRER.net. https://newsinfo.inquirer.net/1814016/bishop-leads-protest-vs-mining-in-eastern-samar

Galvez, D. (2023, May 11). Marcos to Asean: Boost region’s industrial metals, minerals value chain | Global News. INQUIRER.net. https://globalnation.inquirer.net/214911/fwd-bongbong-marcos-calls-for-enhanced-regional-cooperation-to-boost-aseans-industrial-metals-minerals-value-chain

Gita-Carlos, R.A. (2023). PBBM meets with int’l CEOs for potential biz deals. Philippine News Agency.
Global Witness. (2022). Decade of defiance. https://www.globalwitness.org/en/campaigns/environmental-activists/decade-defiance/

GlobalData. (2023). Nickel production in the Philippines and major products. Mining Technology. https://www.mining-technology.com/data-insights/nickel-in-the-philippines/?cf-view

Gozum, I. (2023, February 1). Sibuyan Island residents form human barricade to stop mining trucks. RAPPLER. https://www.rappler.com/nation/luzon/sibuyan-island-residents-form-human-barricade-stop-mining-trucks/

Holden, W.N. (2005). Civil society opposition to nonferrous metals mining in the Philippines. Voluntas: International Journal of Voluntary and Nonprofit Organizations, 16(3) , p. 223–249. https://www.jstor.org/stable/27927972.

International Council on Mining and Metals. (n.d.). Conducting due diligence on government-backed militia - ICMM guidance. ICMM Guidance. https://guidance.miningwithprinciples.com/case_study/conducting-due-diligence-on-government-backed-militia/

IRENA. (2022, March 1). World Energy Transitions Outlook 1-5C Pathway 2022 edition. https://www.irena.org/publications/2022/mar/world-energy-transitions-outlook-2022

Israel, D.C. (2011). Value addition: The way of the future for Philippine mining. PIDS Policy Notes. https://www.pids.gov.ph/publication/policy-notes/value-addition-the-way-of-the-future-for-philippine-mining.

Juganas, D., Abella, G.P, Sigua, G., Valera, M., Morales, E., Santos, L.M., and Villen, J.W. (2022). Terminal Report: Impact Assessment of Mining Activity in Candelaria, Zambales, Philippines (Wet Season).

Koščová, M., M. Hellmer, S. Anyona, and T. Gvozdkova. (2018). Geo-environmental problems of open-pit mining: Classification and Solutions. E3S Web of Conferences. 41. 01034. 10.1051/e3sconf/20184101034.

Lambrechts, K. (ed). (2009). Breaking the curse: How transparent taxation and fair taxes can turn development. Open Society Institute of Southern Africa, Third World Network Africa, Tax Justice Network Africa, Action Aid International, Christian Aid.

Lopez S. P. & Chamber of Mines of the Philippines. (1992). Isles of gold : a history of mining in the philippines. Oxford University Press. Retrieved September 18 2023 from http://books.google.com/books?id=27pPAQAAIAAJ.

Lopez, E. (2022). Timeline: Mining in the Philippines: Of disasters and regulatory failures. Philippine Center for Investigative Journalism. https://pcij.org/article/8048/mining-in-the-philippines-of-disasters-and-regulatory-failures (accessed on).

Macatuno, A. (2015, May 31). Clean, raw beauty of a Zambales lake | Lifestyle.INQ. Lifestyle.INQ. https://lifestyle.inquirer.net/195061/clean-raw-beauty-of-a-zambales-lake/

Manila’s Arroyo sets up army unit to guard mines. (2008, February 8). Reuters. https://www.reuters.com/article/idUSMAN119101

Marbella, K. (2020). Heavy metal accumulation in molluscs as bioindicator of contamination in mangrove sediments in Lake Uacon, Candelaria, Zambales. Archīum Ateneo. https://archium.ateneo.edu/theses-dissertations/508/

Maus, V., Giljum, S., da Silva, D. M., Gutschlhofer, J., da Rosa, R. P., Luckeneder, S., Gass, S. L. B., Lieber, M., & McCallum, I. (2022). An update on global mining land use. Scientific data, 9(1), 433. https://doi.org/10.1038/s41597-022-01547-4

Mendoza, R.U, J.K. Yap, G.A.S Mendoza, L. Jaminola III, E.C. Yu. (2022). Political dynasties, business, and poverty in the Philippines. Journal of Government and Economics, 7. https://www.sciencedirect.com/science/article/pii/S2667319322000222.

[MGB] Mines and Geosciences Bureau. (2022a). Mining Industry Statistics. Department of Environment & Natural Resources.

[MGB] Mines and Geosciences Bureau. (2022b). MSC: Philippine Metallic Mineral Production. Department of Environment & Natural Resources.

[MGB]. Mines and Geosciences Bureau (2023). Mineral Production Sharing Agreements Statistical Summary. Department of Environment & Natural Resources.

NS Energy Staff Writer. (2021, June 28). The largest cobalt reserves in the world by country. NS Energy. https://www.nsenergybusiness.com/features/largest-cobalt-reserves-country/

Ofreneo, R.E. (2009). Failure to launch: Industrialisation in metal-rich Philippines. Journal of the Asia Pacific Economy,14(2), 194–209.
https://doi.org/10.1080/13547860902786037.

Ong, H. (2022). Financial Adviser: 5 Best Performing Mining Stocks So Far This 2022 and How to Profit From Them. Esquiremag.ph.
https://www.esquiremag.ph/money/capital/best-performing-mining-stocks-2022-a2334-20220308-lfrm

ty. Library of Congress Cataloging-in-Publication Data. https://doi.org/10.1596/978-0-8213-6502-1

Philippine Center for Investigative Journalism. (2023, July 29). Marcos' second SONA: Experts weigh in on what he said and didn't say.
https://pcij.org/article/10590/pcij-blog-sona-2023

Philippine Army says mining firms need militias. (2011, October 10). ABS-CBN News.
https://news.abs-cbn.com/nation/regions/10/10/11/philippine-army-says-mining-firms-need-militias

[PSA] Philippine Statistics Authority. (2022a). Statistical Tables Water Accounts 2010 to 2021 [Data set].
https://psa.gov.ph/content/country%E2%80%99s-water-use-efficiency-increased-2020-2021

[PwC] PricewaterhouseCoopers. (2022, June). Mine 2022: A critical transition. PwC.
https://www.pwc.com/id/en/pwc-publications/industries-publications/energy--utilities---mining-publications/mine-2022.html

Quid pro quo. (2017, October 21). Philstar.com.
https://www.philstar.com/business/2017/10/21/1751091/quid-pro-quo

Quintans, J. D. (2017, September 4). Mining industry in the Philippines. The Manila Times.
https://www.manilatimes.net/2017/09/04/supplements/mining-industry-philippines/348610

Ragos, A. M. (n.d.). Mining Communities and Social Development: Assessing the Philippine Social Development and Management Program.
https://www.bantaykita.ph/uploads/2/9/9/2/29922649/mining_communities_and_social_development.pdf

Rappler. (2015, January 16). Alsons to take over Australia's Indophil PH. RAPPLER.
https://www.rappler.com/business/industries/81052-alsons-group-takeover-australia-indophil/

Raymundo, R. (2014). The Philippine Mining Act of 1995: Is the law sufficient in achieving the goals of output growth, attracting foreign investment, environmental protection and preserving sovereignty?

DLSU Research Congress.
https://www.dlsu.edu.ph/wp-content/uploads/pdf/conferences/research-congress-proceedings/2014/SEE/SEE-III-026-FT.pdf.

Rivera, D. (2022, August 26). Mining firms buck new tax regime. Philstar.com.
https://www.philstar.com/business/2022/08/27/2205371/mining-firms-buck-new-tax-regime-

Rivera, D. (2023). Philippine metallic production up 22.8% in Q1. Philstar.com.
https://www.philstar.com/business/2023/06/08/2272173/philippine-metallic-production-228-q1

Rogich, D.G. and G.R. Matos. (2008). The global flows of metals and minerals: U.S. Geological Survey Open-File Report 2008–1355, 11.
http://pubs.usgs.gov/of/2008/1355/.

Sarmiento, B.S. (2022a). 'I am pro-mining': Indigenous opposition to Philippine mine project falters. Mongabay Environmental News.
https://news.mongabay.com/2022/02/i-am-pro-mining-indigenous-opposition-to-philippine-mine-project-falters/

Sarmiento, B.S. (2022b). Southern Philippine coal project moves ahead despite community opposition. Mongabay Environmental News.
https://news.mongabay.com/2022/10/southern-philippine-coal-project-moves-ahead-despite-community-opposition/

Sarmiento, B. S. (2023, September 3). From 5 to 3%: House committee OKs reduction of mining royalty rate. MindaNews.
https://www.mindanews.com/top-stories/2023/09/from-5-to-3-house-committee-oks-reduction-of-mining-royalty-rate/

Scheidel, A., Del Bene, D., Liu, J., Navas, G., Mingorría, S., Demaria, F., Avila, S., Roy, B., Ertör, I., Temper, L., & Martinez-Alier, J. (2020, July 1). Environmental conflicts and defenders: A global overview.

Global Environmental Change-human and Policy Dimensions; Elsevier BV.
https://doi.org/10.1016/j.gloenvcha.2020.102104

Senate Economic Planning Office. (2013). Realizing the Philippines' Mining Potential Policy Brief. https://legacy.senate.gov.ph/publications/PB%202013-12%20-%20Mining_Policy%20Brief_final_revised_010614.pdf

Simeon, L. M. (2022, September 26). New mining applications expected even with new fiscal regime. Philstar.com.
https://www.philstar.com/business/2022/09/27/2212436/new-mining-applications-expected-even-new-fiscal-regime

[SMI] Sagittarius Mines, Inc. (n.d.). Frequently asked questions.
https://www.smi.com.ph/faqs.do#:~:text=The%20shareholding%20structure%20of%20SMI,economic%20control%20of%20the%20company

Sguazzin, A. (2022, May 4). Glencore human rights record worst in green metals, group says. Bloomberg.com.
https://www.bloomberg.com/news/articles/2022-05-04/glencore-human-rights-record-worst-in-green-metals-group-says#xj4y7vzkg

Stevens, P., G. Lahn, and J. Kooroshy. (2015). The resource curse revisited.
https://www.chathamhouse.org/sites/default/files/publications/research/20150804ResourceCurseRevisited-StevensLahnKooroshyFinal.pdf.

Tula. (2022, April 28). Philippine Statistics Authority - ARMM | Solid, Responsive, World Class. Retrieved September 19, 2023, from https://rssoarmm.psa.gov.ph/release/content/press/55789

[UNCTAD] United Nations Conference on Trade and Development. (2007). World Investment Report: Transnational Corporations, Extractive Industries and Development.

[UNCTAD] United Nations Conference on Trade and Development. (2023). World Investment Report: Investing in Sustainable Energy for All.

[USAID] United States Agency for International Development. (n.d.) Revised Draft: Scoping Study on Extractive Industry Governance and Transparency in the Bangsamoro.

Van Halm, I. (2022, January 27). Weekly data: Copper, cobalt, and silver production set to increase in the Philippines after open-pit ban lifted. Mining Technology.
https://www.mining-technology.com/features/weekly-data-copper-cobalt-and-silver-production-set-to-increase-in-the-philippines-after-open-pit-ban-lifted/

[WITS] World Integrated Trade Solution. (2020). European Union Minerals Imports by country in US$ Thousand 2021. World Bank.
https://wits.worldbank.org/CountryProfile/en/Country/EUN/Year/LTST/TradeFlow/Import/Partner/by-country/Product/25-26_Minerals

World Bank. (2020). Minerals for climate action: The mineral intensity of the clean green transition. https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf Wurfel, D. (2006). Mining and the environment in the Philippines: The Limits on Civil Society in a Weak State. Philippine Studies, 54(1), p. 3–40.
https://www.jstor.org/stable/42633861.

Zuasola, F. (2022, August 22). Davao Oriental academics, students join anti-mining signature drive. Rappler.
https://www.rappler.com/nation/mindanao/davao-oriental-academics-students-join-anti-mining-signature-drive/

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