

WHO PAYS FOR THE ENERGY TRANSITION?

UNEARTHING ADB'S CRITICAL MINERALS
AGENDA AND ITS SEVEN CARDINAL SINS



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on ADB



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EXECUTIVE SUMMARY

The global race for critical minerals, driven by the energy transition and deepening geopolitical competition, is reshaping public financing that demands urgent scrutiny. This policy brief examines the Asian Development Bank's Critical Minerals to Clean Energy Technologies (CM2CET) initiative, which marks the Bank's return to direct mining investment after more than four decades. While framed under the banner of sustainable development and climate action, CM2CET operates within a contested global landscape where mineral demand is as much about national security and supply chain dominance as it is about decarbonization.

The brief traces how critical minerals have become central to competing power strategies among the United States, China, and the European Union, with resource-rich nations in the Global South increasingly positioned as extraction hubs serving consumption in the Global North. Moreover, the ADB's phased approach to mining investment, which includes support for industrial-scale and junior mining operations, technical assistance classified as climate finance, and a new Regional Financing Facility, carries significant risks that remain inadequately addressed.

Drawing on historical cases including the Marcopper mining disaster in the Philippines, the Oyu Tolgoi project in Mongolia, and ongoing concerns around the Reko Diq project in Balochistan, the brief documents the recurring harms associated with extractive industries backed by multilateral development banks. These include environmental destruction, displacement of Indigenous Peoples, militarization, and weak accountability, harms that the Bank's "climate-smart mining" framework has yet to credibly resolve.

Using the NGO Forum on ADB's Seven Cardinal Sins framework, the brief identifies systemic governance failures across transparency, community participation, accountability, and climate framing. It concludes with concrete recommendations calling on ADB to remove mining from climate finance classifications, adopt genuine no-go zone protections, uphold Free Prior and Informed Consent, prioritize circular economy strategies, and align its agenda with the United Nations Secretary-General's Guiding Principles on Critical Energy Transition Minerals.

I. INTRODUCTION

Moving the global economy away from fossil fuels requires an extraordinary mobilization of materials, capital, and political will. But the manner in which that mobilization is unfolding reveals a troubling paradox, mainly because the transition to clean energy is being built on extractive foundations that mirror, and in some cases deepen, the inequalities and environmental destruction, so much so for a huge step for climate action and an energy transition.

At the center of this paradox sits a renewed and aggressive global interest in critical minerals. Demand projections are staggering, and the scramble to secure these materials has become one of the defining features of 21st century geopolitics. For instance, major economies of the Global North have developed critical minerals strategies that share a revealing common orientation, which is securing access to minerals located overwhelmingly outside their own borders. Most recently, the U.S. State Department's Pax Silica initiative made explicit what many suspected, that the language of energy transition increasingly serves as cover for mineral supply strategies built around national security and competition with China and not decarbonization. The result is a global architecture of critical minerals policy written by those who consume it, not those who bear the burdens of extraction.

It is within this fraught context that multilateral development banks, including the Asian Development Bank, have re-entered the mining sector. MDBs have a legitimate, even necessary, role in shaping how the energy transition unfolds across the Global South, as their



A small-scale miner extracts ore inside an underground mine, highlighting the labor-intensive conditions faced by artisanal mining communities. (Photo courtesy of Pinterest)

convening power, technical capacity, and development mandates position them as potentially important counterweights to purely commercial or geopolitically-driven extraction. The question now is how ADB, now as a rejoinder to the extractives, be accountable into this problematic web of concerns in the sector.

The answer provided by ADB's CM2CET initiative is, at present, deeply inadequate. After more than four decades away from direct mining investment, ADB has returned to the sector with ambition and speed, but without the safeguards, frameworks, or genuine community engagement that such a return demands. Its growing reliance on private sector actors and financial intermediaries creates accountability gaps, while the classification of mining-related support as climate finance risks greenwashing activities with documented records of environmental harm. This brief documents what is at stake, who is being asked to pay the price, and what a genuinely just minerals transition would require.

II. Why are minerals deemed critical?

In recent times, critical minerals have been largely attributed to the transition to clean energy technologies. It is also used interchangeably with 'strategic' or 'transition' minerals for that particular reason. With this, it is important to define what critical minerals are and how they are defined over time. Conversely, there is no universally accepted definition of "criticality," and it evolves based on societal needs and supply conditions. Criticality of minerals also varies highly context- and country-specific, shaped by resource availability, economic importance, and assessments of supply risk and volatility. For instance, nickel could be critical to Asia, but not in South Africa.

key industries and technologies. They are typically in high demand and vulnerable to supply disruptions. As a concrete example, a United States energy-related law defined critical minerals in three specific conditions: national security, economic stability, and supply chain resilience. To some extent, there is a particular provision about "Monitoring mineral investments under the Belt and Road Initiative of the People's Republic of China". On the other hand, China's industrial policy and infrastructure have informed the criticality of minerals such as rare earth elements, lithium, and cobalt, and catapulting them into its global economic influence and competitive edge. It is equally important to note, however, that the U.S. is not a neutral actor in this landscape. The framing of critical minerals policy in the U.S. has been overwhelmingly security-driven, positioning China's supply chain dominance as a geopolitical threat while aggressively pursuing its own strategic advantage. The U.S. is 100% dependent on foreign suppliers for 12 minerals deemed critical to its economy and national security, and over 50% reliant on non-domestic sources for another 29. In response, both the Biden and Trump administrations have deployed a battery of policy tools such as executive orders, tariffs, permitting fast-tracks, and billions in financing, to rebuild domestic and allied supply chains. Despite a more concerted effort to address dependency problems, these initiatives lack centralized coordination or a whole-of-government approach and remain fragmented. Crucially, the U.S. strategy of "friendshoring", which is anchored in the Minerals Security Partnership (MSP), seeks to consolidate trade and investment in critical minerals within the Western bloc, reducing collective reliance



Various studies emphasize two contending dimensions as to how countries define critical minerals: economic importance and value to global supply chains. Minerals that are vital to economic growth and highly valuable within global supply chains often underpin

on strategic adversaries, particularly China. While framed as a cooperative multilateral effort, critics note that this architecture largely serves the supply security interests of wealthy, industrialized nations, with resource-rich countries in the Global South positioned primarily as extraction and processing hubs rather than as equal beneficiaries.

The U.S. is not alone in this regard. A number of Global North economies have developed formal critical minerals strategies, each reflecting their own industrial and security priorities. Germany's Raw Materials Strategy centers on supply diversification and circular economy goals to secure inputs for its manufacturing sector. France's critical minerals strategy prioritizes securing materials for its defense and high-technology industries. Canada's Critical Minerals Strategy focuses on building domestic value chains and deepening export partnerships with allied nations. The European Union, through its Critical Raw Materials Act, similarly aims to reduce strategic dependencies and secure supply for its green and digital industries.

What is striking across all these strategies is their shared orientation of securing access to minerals located overwhelmingly outside their borders. Meanwhile, many of the countries that actually hold significant mineral deposits, those across Asia, Africa, and Latin America, do not have critical minerals strategies of their own. This absence of their own critical minerals strategy reflects deeper structural inequalities in global governance that leave resource-rich nations of the Global South without the institutional frameworks to define their own terms of engagement or capture more value from their resources. In effect, the global architecture of critical minerals policy is being written by those who consume, not those who bear the burden of production. This in turn reinforces a distinctly extractive agenda toward the Global South.

III. Powering the Energy Transition and Cost of Extractivism to Asia

Many of the minerals mentioned are tied to several industries, including defense, the medical field, and electronics. In the last decade, the global climate crisis changed the discourse into shifting away from heavy reliance on fossil fuel-based energy systems towards renewable energy. The transition of critical minerals from their original industrial uses to primary drivers of the energy transition has occurred and accelerated by the rapid adoption of electric vehicles, battery storage, and renewable energy technologies. In the context of energy transition, minerals like copper, lithium, nickel, cobalt, and rare earth elements become increasingly important due to their essential role in producing clean technologies such as wind turbines, solar panels, batteries, and electric vehicles.

As the shift deepens, demand for critical minerals is projected to rise dramatically. According to the International Renewable Energy Agency's 1.5°C scenario, achieving climate stability will require a massive expansion of energy infrastructure and critical materials, including around 33,000 GW of renewable energy capacity and the electrification of 90% of road transport by 2050. So far, the current data from the International Energy Agency suggests that the demand for these minerals is increasingly dominated by the shift toward low-carbon energy systems. Based on the 2025 Global Critical Minerals Outlook, Asia is considered a global powerhouse for critical minerals, with several countries serving as world-leading sources for extraction and refining.



China's dominant position in the global supply chain for critical minerals—including rare earth elements, lithium, cobalt, and graphite—underscores its strategic role in the global energy transition and advanced manufacturing industries. Photo credit: Graphic by Visual Capitalist, based on data from Benchmark Mineral Intelligence and other industry sources.

China remains the dominant force in the global critical minerals supply chain, particularly in refining, where it holds an average market share of around 70% across key energy-related minerals. It leads in mining as well, producing 87% of natural graphite, 61% of rare earth elements, and significant shares of lithium and copper, while refining over 90% of rare earths and battery-grade graphite and roughly 70–75% of global lithium and cobalt. Its dominance extends to specialty minerals, positioning it at the core of both upstream and downstream supply chains.

Beyond China, there are several countries that play critical but more specialized roles. Indonesia has emerged as a key hub for battery minerals, dominating global nickel supply and contributing significantly to cobalt, copper, and tin production. Central Asia, led by Kazakhstan and supported by Uzbekistan, is crucial for uranium supply, underpinning nuclear energy systems.

Meanwhile, Myanmar supplies a large share of heavy rare earth elements, the Philippines contributes notable nickel output, and Viet Nam is developing its role in rare earths and downstream processing. Other regional players include India, with substantial untapped mineral potential and refining capacity; Japan and South Korea, which specialize in advanced processing and materials manufacturing; Mongolia, home to a major expanding copper project; and Malaysia, a key site for rare earth separation and high-purity silicon production.

Moreover, the broader Western-led push for critical minerals also raises structural concerns. While these figures highlight Asia's centrality in the global critical minerals supply chain, the geography of extraction, processing, and manufacturing is not evenly distributed but highly concentrated in resource-rich regions, many of which are in the Global South. The benefits also accumulate elsewhere in the form of electric vehicles, renewable energy systems, and artificial intelligence infrastructure. This spatial separation between sites of extraction and sites of consumption reflects the longstanding patterns of global production in which environmental burdens and social risks are externalized to peripheral regions.

The pattern is not confined to Chinese-linked operations. According to the SAFE Center for Critical Minerals Strategy, many mining companies around the world, including those operating under Western ownership, have a record of human rights abuses, fostered by weak or absent governance and lack of transparency.

Global corporations have rushed to secure lithium supply chains, promising ethical sourcing and transparency, yet independent investigations expose discrepancies between corporate rhetoric and on-the-ground realities. While companies highlight their environmental standards, local communities report minimal consultation and compensation. Therefore, these regional dynamics are reflected in country-level experiences, where the pressures of extraction intersect with national policy frameworks and local realities.

Take the case of the Philippines as an example. Based on the recent country report to the Extractive Industries Transparency Initiative (EITI), the extractive industry provides for a measly amount to the national economy, accounting for just 0.7% of GDP between 2023 and 2024. Furthermore, mining policies such as the requirement for a Financial or Technical Assistance Agreement allows 100% foreign ownership of structures. Foreign beneficial owners identified included individuals from Japan, Australia, China, New Zealand, and Russia. There is also a strong presence of multinational companies and subsidiaries in the country that operate large-scale mining, including OceanaGold, Nickel Asia Corporation, TVI Resource Development, and others. This kind of system bears risks and unequal distribution of benefits to host communities, especially those that are located on Indigenous Peoples' lands and ancestral domains, and protected areas. Another example would be Indonesia, which is the largest exporter of nickel in Asia. The report of JATAM revealed that extractive industries receive special treatment by the National Government while leaving the communities devastated. In Central Halmahera, one of the largest downstream nickel sites, many nickel



A miner displays ore-bearing rocks recovered from a mining site, reflecting the labor-intensive work that supports mineral extraction and local livelihoods in many resource-rich communities. (Photo courtesy of Pinterest)

processing operations continue to rely on captive coal power, undermining the climate rationale of mineral extraction for clean energy technologies. In turn, the nickel operations worsen the conditions of the environment with massive flooding and scarce water, and massive health impacts to communities. In many areas, farmers were forcibly displaced from their land, and hundreds of workers staged protests following a nickel plant explosion that resulted deaths. While nickel is deemed necessary for energy transition, these glaring conditions undermine the principles of justice and equity, given its cost to human lives and the environment.



Aerial view of Toledo City, Cebu, a major mining and industrial area in the Philippines known for large-scale copper extraction and mineral processing activities. Photo credit: Photo by Ramon FVelasquez via Wikimedia Commons.

Another key concern is the traceability of these minerals. As noted earlier, critical minerals are used not only in the energy transition but also across a wide range of industries.

In the absence of robust traceability, it is often unclear whether these minerals are ultimately used for energy transition purposes or for other industrial applications. As part of due diligence, it is crucial to understand the locations and movement of the entire value chain. According to the OECD and IEA, only a few countries in the world have existing traceability regulations. Requirements differ across countries in terms of how extensively they map these activities; not all mandate site visits or execute human rights violation monitoring, while some focus only on specific CM. Hence, tracking the movement of CM for the energy transition remains opaque and vulnerable to a lack of transparency.

To conclude, the shift to clean energy is often described as something that benefits everyone, but in reality, it depends on unequal and extractive relationships. As Asia emerges as a central hub for CM production and processing, it is also where many of the environmental degradation exacerbated by climate-induced vulnerabilities, labor risks, and human rights violations are concentrated. This reflects a broader pattern where parts of the Global South are treated as 'sacrifice zones', absorbing the social and ecological costs to meet global demand. Overall, this suggests that Asia is not only a "powerhouse" of critical minerals but is also increasingly carrying the environmental and social burdens of the global energy transition to support decarbonization elsewhere.

IV. Violent History of Critical Minerals Extraction Linked to MDBs

Mining is historically linked to the infringement of the fundamental rights of affected populations. Large-scale operations are always associated with a range of human rights violations and severe environmental impacts, often intersecting in ways that threaten the lives, livelihoods, and cultural identities of local communities and Indigenous Peoples. These tragedies are often linked to Multilateral Development Banks' backing, such as the Asian Development Bank.

There are several cases featuring the most prominent tragedies involving critical minerals mining, especially in Asia.

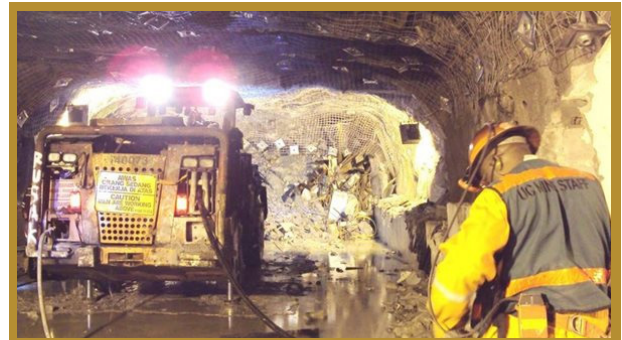
One of them is the **Grasberg Mine disaster in West Papua, Indonesia.**



A rescue team from Freeport Indonesia goes underground on Sunday, Oct. 5, 2025, to evacuate the bodies of miners trapped by the September 8 mudslide in the company's Grasberg underground mine in Mimika, Central Papua. (Antara Photo)

It is the second largest copper mine in the world after Chile. In 2025, several accidents happened in the mines, which included the devastating 800,000-ton mudslide killing eight workers and injuring five.

Similar disasters also took place in 2006 and 2013; in the latter year, the roof of an underground training tunnel at the **Big Gossan facility** collapsed, trapping dozens of workers and resulting in multiple fatalities.



The Big Gossan mine in Papua, Indonesia, which collapsed on May 14, 2013, trapping dozens of workers and claiming the lives of 28 people. (Photo courtesy of PT Freeport Indonesia)

These accidents could be attributed to the long-standing and serious human rights abuses and environmental damage, particularly affecting the indigenous Amungme and Kamoro communities. Within a governance context, the Indonesian government often prioritizes corporate interests. Reported violations include killings, arbitrary detention, displacement from ancestral lands without proper consent or compensation, and increased militarization that has created a climate of fear, while local communities remain economically marginalized despite the mine's wealth. Environmentally, decades of mining have led to massive toxic waste disposal in rivers, deforestation, and the disruption of traditional livelihoods, including food sources. These impacts have also fueled social tensions among communities. Although corporate social responsibility programs exist, they are often criticized as reactive, lacking





transparency, and failing to meaningfully address indigenous rights or align with local cultural contexts.

This somehow mirrors the case of **Oyu Tolgoi Mines in Mongolia**, which is one of the untapped potentials on copper-gold reserves located in the Gobi region. This project was mainly pushed by the European Bank for Reconstruction and Development and World Bank's private arm International Financial Corporation, with a syndicated loan in 2015 amounting to USD 1.2 Billion.



The Oyu Tolgoi copper mine in Mongolia, one of the world's largest copper and gold mining projects, combines a vast open-pit operation with an expanding underground mine located about 550 kilometers south of Ulaanbaatar. (progesys.com)

Managed by Oyu Tolgoi LLC and majority-owned by the multinational corporation Rio Tinto, the project operates in an arid environment characterized by limited surface water, low rainfall, and frequent droughts. Similar to other mines, its development has led to significant conflicts regarding environmental preservation and the protection of traditional nomadic livelihoods. Water scarcity is a major concern, as river diversion, loss of natural springs, and intentionally poorly constructed "cascading wells" threaten

local water systems and pastoral livelihoods in the Gobi region. These issues have led to formal complaints and the establishment of a Tripartite Committee to address conflicts between the company, herders, and local authorities.

Recent assessments from 2024-2025 highlight significant environmental and social impacts near the mine, including soil contamination with high levels of nickel, zinc, and arsenic, and groundwater pollution exceeding safe limits for several chemicals and heavy metals. The planned block caving method for Phase 2 is expected to cause irreversible land damage, creating an unstable subsidence zone of over 8 km² that cannot be restored for traditional use. Water scarcity is a major concern, as river diversion, loss of natural springs, and poorly constructed wells threaten local water systems and pastoral livelihoods in the Gobi region.

These issues have led to formal complaints and the establishment of a Tripartite Committee to address conflicts between the company, herders, and local authorities. At the same time, the project faces economic and operational challenges, including fluctuating mineral prices and uncertainties around securing a reliable power supply. Despite these mounting problems, these MDBs continue to finance the site. In 2024, additional financing from EBRD and IFC amounting to USD 350 Million, along with other commercial banks, to finish the mines.

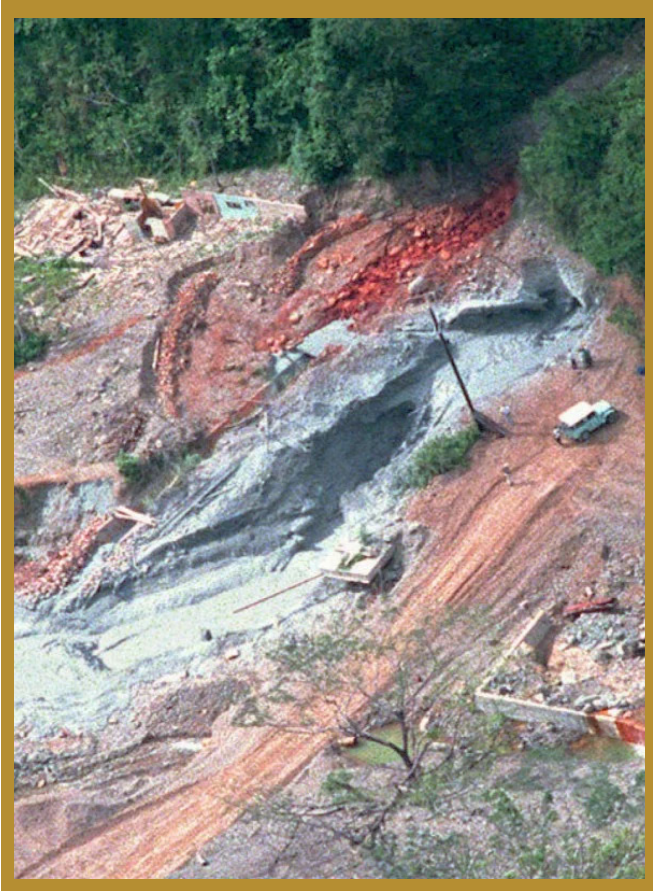
Who would have forgotten one of the worst mining disasters in Philippine history? Operated by the Marcopper Mining Corporation, which began open-pit copper mining in 1969, the project has a legacy marked by catastrophic infrastructure failures and long-term health and environmental damage.

improper waste disposal had already caused extensive damage, including the dumping of 200 million tons of mine tailings into Calancan Bay, destroying thousands of hectares of fishing grounds.

The impacts persist today, with rivers left biologically dead, widespread heavy metal contamination, and serious health issues among residents, such as poisoning and developmental problems in children.

Despite this, rehabilitation has been limited, and legal accountability remains unresolved, with ongoing cases involving Marcopper, Placer Dome, and Barrick Gold; notably, in 2014, Marinduque officials rejected a \$20 million settlement offer from Barrick Gold as inadequate and refused to waive the company's liability. In 2026 and thirty years after the tragedy, it was only when Barrick Mining was able to pay half of the compensation amounting to USD 50 Million for the environmental disaster and was deposited into an escrow account.

The history of critical minerals extraction shows that what is often called 'development' is deeply unequal and harmful for many communities. In regions like West Papua, Mongolia, and Marinduque, mining has brought deadly accidents, pollution, and loss of livelihoods, especially for Indigenous Peoples and residents, while most of the benefits go to big corporations (sometimes foreign entities). These harms are indeed part of a system that prioritizes profit over people, treating damage to communities and the environment as an acceptable cost.



Mine waste and tailings spill into a river system following the 1996 Marcopper mining disaster in Marinduque, Philippines, one of the country's worst environmental catastrophes. (Photo courtesy of SCMP)

The project was backed by a \$40 million loan from the ADB with Placer Dome, Inc., which held a 40% stake in MMC. This involved the 1993 Mogpog dam collapse, which killed two children and severely contaminated the river, and the 1996 Boac River spill, where around 1.6 million cubic meters of toxic tailings polluted over 27 km of waterways and coastal areas, prompting the UN to classify it as a major environmental disaster. Long before these incidents, decades of

V. ADB's Encroachment on Critical Minerals Mining

Given the cases above, it is indeed more concerning is that this pattern is continuing today under the push for clean energy. As demand for critical minerals grows, the same communities that have long suffered from mining are once again being put at risk. This reveals a difficult truth, wherein the shift to “clean” energy is still built on harmful practices.

Then again, Multilateral Development Banks, the ADB in particular, has actively sought after the extractive venture. After 40 years of its investment hiatus, the Bank has officially bankrolled several projects linked to mining in various forms. But the central question is why go back to mining? And more importantly, how does the Bank reconcile this return with its own institutional memory of that damage?

5.1. Climate-Smart Mining Framework

Given the context provided and how the global discourse on energy transition has moved in the past years, financing the industry is also at the table. This is where Multilateral Development Banks like the Asian Development Bank come in.

The current framework that these MDBs operate with is the Climate-Smart Mining framework, which appears to be promoted to address climate change and the historical footprint of environmental destruction and human rights in mining operations. Taking a closer look, ADB follows the World Bank's Climate-Smart Mining framework in developing new mining projects.

This approach focuses on four main areas: Climate Mitigation (reducing emissions through cleaner technologies and energy efficiency); Climate Adaptation (adapting mining operations to climate risks); Reducing Material Impacts (minimizing environmental impacts by promoting recycling and circular practices); and Creating Market Opportunities (supporting investments in low-carbon minerals).

However, this approach reflects a broader pattern often described as ‘green extractivism’, where older mining practices are repackaged under climate goals. The shift to a low-carbon future still relies heavily on resource-rich developing countries. Civil society groups also see this as a continued expansion of mineral extraction that harms biodiversity, water resources, and land rights. They argue that the rising demand for minerals is driven less by the needs of green energy technologies and more by unsustainable patterns of production and consumption.

5.2. Critical Minerals to Clean Energy Technologies (CM2CET) Initiatives

In early 2025, the ADB held a series of information sessions to present and gather input on its operational approach paper for CM2CET Manufacturing Value Chains. The paper is intended to guide the bank's strategy in strengthening manufacturing value chains to speed up the deployment of clean energy technologies needed for the energy transition. It identifies six (6) key technologies that ADB plans to support: solar photovoltaics, grid battery storage, wind turbines, hydrogen, electricity networks, and electric vehicles.

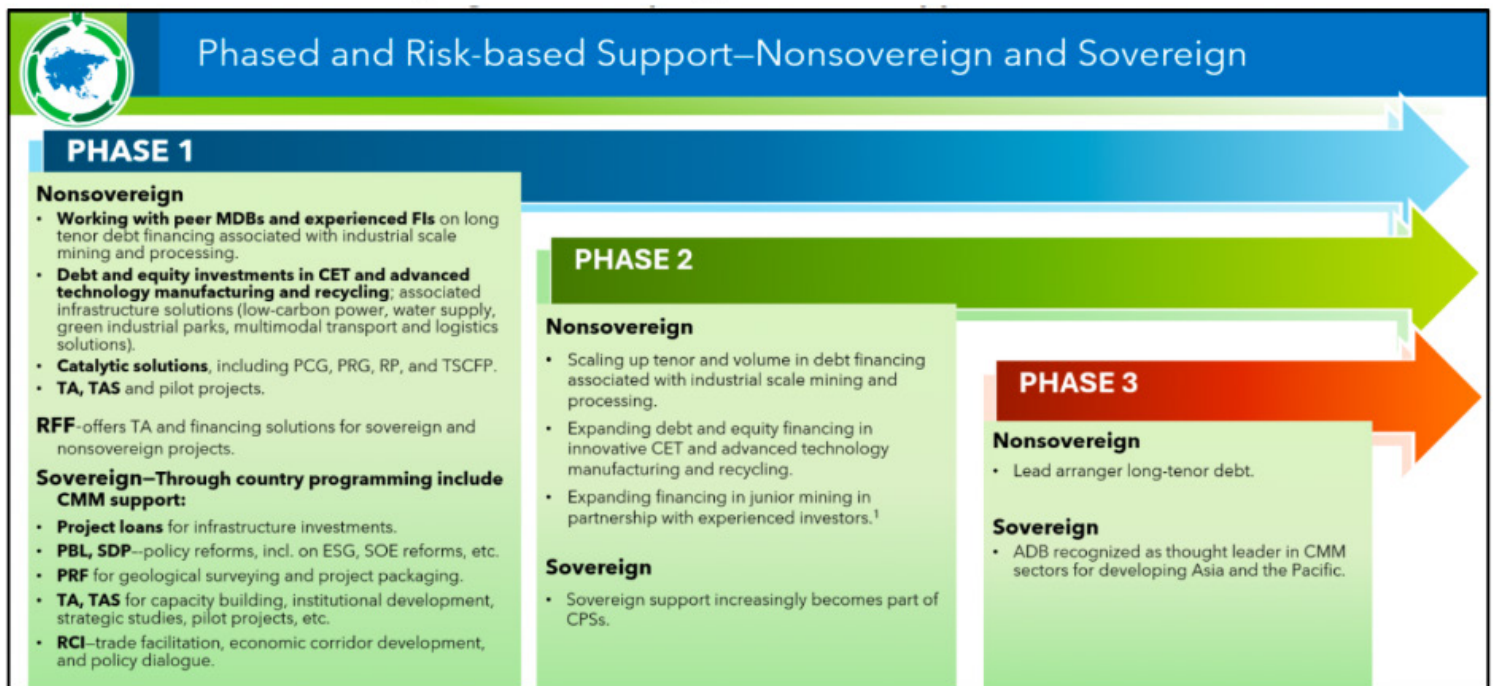
According to the Bank, this decision was built upon the unprecedented and time-bound demand for CMMs, targeting support for ADB's developing member countries in accessing significant opportunities for economic diversification, local value creation, and growth beyond resource extraction by localizing clean energy manufacturing. In the same year, ADB approved the amendments on integrating CM2CET into its updated Energy Policy, formalizing engagement of the bank for direct investment in CM mining.

For ADB, this initiative is a broader part of its climate initiatives. Due to the growing demand of minerals for electric vehicles and clean energy technologies (CETs).

They claim that by supporting “responsible and sustainable practices across the value chain”, they will be able to provide more jobs, inclusive growth, and acceleration of CETs globally. Moreover, some of the CM-related technical assistance is classified under climate finance.

ADB has a huge ambition in expanding its horizons to CM mining. In the same year, the Bank released a Board Directional Paper for CM2CET. This document outlined the planned approach of the Bank in their investment from 2025–2029, since they have not been active in financing mining activities since 1983. There are three phases of engagement that ADB envisioned for this resurging interest.

Figure 1. Phased Approach of ADB in CMM



Source: ADB Board Directional Paper on CMM 2025-2029

Project Name	Type	Country/ies	Approval Date	Status
Project Number: 57273-001 Climate-Smart Mining for a New Climate Economy	Technical Assistance	Mongolia	December 13, 2023	Active
Project Number: 58185-001 Enabling the Development of Inclusive, Resilient, Diverse, and Responsible Critical Minerals and Clean Energy Technology Manufacturing Supply Chains	Technical Assistance	Indonesia, Mongolia, Uzbekistan, Viet Nam	May 13, 2024	Active
Project Number: 58010-001 Advance Sustainable Clean Energy Network for Development	Technical Assistance	Georgia, India, Indonesia, Kazakhstan, Malaysia, Mongolia, Pakistan, Philippines, Tajikistan, Uzbekistan, Vietnam	June 28, 2024	Active
Project Number: 58025-001 Accelerating Environmental, Social, and Governance-Focused Private Sector Market Development in the Central and West Asia Region	Technical Assistance	Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Pakistan, Uzbekistan	July 23, 2024	Active
Project Number: 58013-001 Reko Diq Mining Project	Loan	Pakistan	August 21, 2025	Active
Project Number: 59466-001 Catalyzing Energy Transitions in Asia through Strategic Analysis Project Number 59466-001	Technical Assistance	Regional: Central and West Asia and Southeast Asia (No country disclosed)	December 17, 2025	Active
Project Number: 59373-001 Responsible Critical Mineral Value Chains for a Clean Energy Future	Technical Assistance	Lao People's Democratic Republic, Papua New Guinea, Sri Lanka	February 25, 2026	Active

On the other hand, many anti-mining groups, environmental defenders, and bankwatchers raised the alarm against the Bank about the dangers of this initiative.

In 2025, there were two online information sessions discussing the approach. The NGO Forum on ADB, together with many of those who joined their virtual sessions, amplified concerns, particularly on stakeholders' engagement plan, transparency, and application of stringent environmental and social standards, the inherent risks of mining, and the past harms committed by the Bank in engaging with the extractives industries. With the lack of adequate response from ADB and operating early on, even without a clear framework, it reflects

how the Bank is currently working; moving forward with initiatives too quickly and without enough meaningful consultation, putting its own agenda ahead of genuine engagement and accountability. This raises serious concerns about whether the Bank has truly learned from past experiences in the extractive sector, especially when it comes to environmental damage, displacement of communities, and the exclusion of affected groups from decision-making.

Without a clear framework and strong safeguards in place, there is a real risk that the same harms will be repeated, calling into question the Bank's commitments to transparency, sustainability, and inclusive development.

5.3. Broader Policy and Practical Gaps on ADB's Critical Minerals Agenda

There are many signs that ADB downplays the potential impacts of its “new” approach to mining, as reflected in its policy documents and the responses of key officials. In reality, there are massive complexities involving climate risks, health impacts, human rights violations, economic burdens, transparency issues, and even geopolitical tensions.

Narrow Climate Framing and Risk of Greenwashing



Conceptual illustration of greenwashing, highlighting the gap between environmental claims and industrial pollution. (Photo courtesy of Pinterest)

Concerns about the CM2CET initiative point to a deeper issue of greenwashing, where civil society groups and environmental defenders argue that this is not a genuine shift in how mining is done, but rather a rebranding of the same destructive model under a “green” label.

By classifying mining-related support as climate finance, ADB risks blurring the line between real climate action and activities that have long contributed to environmental damage and human rights violations.

Terms like “climate-smart mining” suggest progress, but often focus narrowly on efficiency or reducing

emissions at the company level, while overlooking the broader and more serious risks faced by communities on the ground.

In practice, technical assistance programs, though framed as advisory, can pave the way for large-scale extraction, creating conditions for projects that may lead to land loss, pollution, and long-term ecological harm.

At the same time, the climate risks tied to this approach are not being fully acknowledged. Expanding mining in the name of clean energy does not automatically translate to sustainable outcomes, especially when key safeguards are weak or missing.

The lack of clear commitments to international standards like Free, Prior, and Informed Consent (FPIC) and human rights protections raises concerns that affected communities may once again be excluded from decisions that directly impact them.

There are also unanswered questions about transparency, with non-disclosure practices limiting public oversight, and about where these “critical minerals” ultimately end up, including the possibility of diversion to military and defense industries.

More broadly, this approach risks ignoring the root cause of the crisis: unsustainable patterns of production and consumption.

Without addressing these, the initiative may simply shift the burden, creating new “sacrifice zones” where Indigenous Peoples and vulnerable ecosystems bear the costs of a green transition that benefits others.



Transparency Concerns and Governance Accountability

These concerns are compounded by the way the initiative is framed for implementation. In the phased approach of ADB, the involvement of financial intermediaries and junior mining companies is targeted to be introduced.

However, this will exacerbate accountability gaps, allowing the Bank to support extractive activities while distancing itself from their most harmful impacts. In a report by the Natural Resource Governance Institute, it cited that smaller “junior” firms, often with limited track records or links to politically exposed individuals, may lack the capacity to uphold environmental and social standards, increasing the risk of corruption, regulatory bypassing, and community harm.

At the same time, while mining policies differ across countries and regions, many domestic laws and regulations raise serious transparency concerns, as

excessive confidentiality clauses often limit public access to critical information.

For example, the use of strict confidentiality and non-disclosure clauses in technical assistance and mining agreements can shield private operators from public scrutiny and prevent affected communities from accessing critical project information.

Moreover, a myopic approach to national mining policies, combined with reliance on outdated legal frameworks that are 20–30 years old, raises serious concerns in the context of adopting CM2CET. Without updated safeguards, this approach risks moving forward without adequate social and economic protections, meaningful transparency mechanisms, or alignment with climate targets and gender considerations.

As mentioned in the previous section, there are also concerns about opaque traceability. It is often unclear whether critical minerals are actually used for clean energy or diverted to military and defense industries.

Cost of Mining to People and the Planet

Human rights violations linked to large-scale mining are lived realities in many affected regions.

Civil society organizations report that mining areas are often heavily militarized, with security forces used to suppress dissent rather than protect communities. This has led to documented cases of intimidation, enforced disappearances, and even killings of environmental defenders. In contexts where civic space is already restricted, communities face serious risks in speaking out or participating in decisions that directly affect their land and livelihoods. These concerns are heightened when projects move forward without strong safeguards.

Without these protections, Indigenous Peoples and local communities are left with little power to accept or reject projects, reinforcing fears of “sacrifice zones” where their rights and environments are treated as expendable.

The situation in Balochistan, particularly around the Reko Diq project, illustrates how these risks can unfold in practice.

Civil society groups have raised concerns about a highly militarized environment, shrinking civic space, and the difficulty of conducting meaningful stakeholder engagement, especially when communities fear reprisals and lack recognition of their full rights, including FPIC.

With the cases elaborated earlier, the environmental and health impacts further deepen these risks. Mining has a

long and well-documented history of irreversible damage, from toxic waste and chemical exposure to the contamination of rivers and groundwater that communities depend on for survival.

These impacts can lead to serious health problems, including respiratory and neurological illnesses, while also affecting livestock and food systems. New mining projects tied to “critical minerals” are expected to generate large volumes of toxic waste and intensify pressure on already fragile ecosystems, especially in water-scarce regions.

Livelihoods are often among the first to be affected, as access to land, grazing routes, and clean water becomes increasingly restricted.

The Marcopper Mining tragedy offers a concrete example of these overlapping risks, with concerns about groundwater depletion, toxic exposure, and the disruption of pastoralist livelihoods in an already arid environment. At the same time, its reliance on carbon-intensive energy sources raises questions about whether such projects truly align with climate goals.



Flooded villages, toxic rivers, ill residents, children dying: The 1996 Marcopper Placer Dome mining disaster remains one of the largest environmental disasters in Philippine history. The fight for justice still goes on. Photo credit: Environmental Justice Atlas (EJAtlas).

Broader Geopolitics of Critical Mineral Extraction

The broader geopolitics of the CM2CET initiative is increasingly shaped by a global race for supply and value chain control, where access to minerals is no longer just an economic issue, but a matter of national security, technological dominance, and geopolitical influence.

A handful of countries dominate the extraction of key minerals, such as lithium, cobalt, and nickel, while processing is even more tightly concentrated, particularly in China, which controls large shares of refining for graphite, rare earths, and battery materials.

Through its integrated strategy across mining, metallurgy, and advanced materials, China has built significant strategic leverage, even demonstrating its willingness to restrict exports of critical inputs during trade tensions. In response, the United States and European Union are rapidly restructuring their approaches.

The U.S. has shifted toward bilateral deals that tie mineral access to broader political and security alliances, while the EU is pursuing “strategic autonomy” by investing in alternative supply chains and reducing dependence on Chinese processing.

More concerning is the newly sealed Pax Silica initiative led by the U.S. It was launched in December 2025 by the U.S. State Department specifically targeted to boost AI and minerals supply chain among its coalition partners, “essential to safeguarding our mutual security and prosperity”.

Many critics pointed out huge red flags on this initiative. Most strikingly, the word “energy transition” does not appear anywhere in the signed Critical Minerals Agreement linked to this initiative, but obviously for national security, defense, and economic competitiveness.

The controversial Reko Diq Project in Balochistan was also mentioned as part of these CM agreements under Pax Silica, particularly under the Project Vault, which is basically an effort to stockpile minerals and to counter China's dominance in critical mineral supply chains. It is clear that Pax Silica is not intended for energy transition but for a war against global dominance.

Beyond competition, this indeed reshapes the global power relations, placing resource-rich countries at the center of geopolitical bargaining while exposing them to new forms of pressure and influence. For developing countries, this moment presents both opportunity and risk.

Some governments are leveraging this competition to renegotiate mining contracts, push for domestic processing, and capture more value from their resources. At the same time, trends like resource nationalism reflect growing tensions over who controls mineral wealth and who benefits from it.

Countries like Chile and Australia are carefully balancing relationships with both China and Western powers, navigating a complex geopolitical landscape where alignment carries economic and political consequences.

However, beneath the language of “clean energy transition,” there is a less visible dynamic, where many of these minerals are dual-use, essential not only for renewable technologies but also for defense systems, including advanced weapons and military infrastructure.

This raises serious concerns about whether initiatives framed as climate solutions may, in practice, also be feeding into global militarization. In fragile and conflict-affected regions, these geopolitical pressures can intensify local conflict, militarization, and exclusion, as global demand intersects with local vulnerabilities.

For the ADB, these dynamics carry significant implications. By positioning itself within this geopolitical race through CM2CET, the Bank risks becoming entangled in a system where development finance is increasingly aligned with the strategic and security interests of major powers, rather than grounded solely in poverty reduction or sustainable development.

Civil society organizations argue that this framework risks reinforcing an extractivist model.

One that prioritizes resource flows to sustain consumption patterns and industrial demands in the Global North, while externalizing environmental and social costs to the Global South. As competition expands into new frontiers such as the deep sea, the Arctic, and even outer space, the stakes will only grow.

VI. Debates on Just Minerals Transition

At the heart of today’s debate on transition minerals is a growing tension between the urgent push for a clean energy transition and the need to ensure it is truly just.

The United Nations Secretary-General’s principles on critical energy transition minerals (CETMs) were developed precisely to address this tension, offering a set of guardrails to prevent the energy transition from repeating the harms of past extractive industries. These principles place human rights at the center, requiring respect for Indigenous Peoples’ rights, including FPIC, and protections for workers, women, and local communities.

They also stress the need to safeguard ecosystems by enforcing strict environmental limits, including “no-go” zones in ecologically and culturally sensitive areas, and ensuring the protection of water systems and biodiversity.

Beyond protection, the framework calls for fairness in mineral-rich countries, particularly in the Global South. This is to ensure that they will not remain mere suppliers of raw materials but should benefit through value addition, economic diversification, and equitable revenue sharing.

Transparency, accountability, and traceability are also central, ensuring that contracts, ownership structures, and mineral flows are visible and open to scrutiny. In parallel, the idea of “responsible mining” has evolved to reflect a broader vision, moving beyond profit alone to balance Planet, People, Profit, and Policy, with environmental protection recognized as the primary condition for any legitimate extraction.

However, these frameworks also reveal deeper contradictions. While “responsible mining” promises a more ethical model, critics argue that it can easily be reduced to a label that softens the image of extraction without fundamentally changing its impacts. This is where the concept of a Just Minerals Transition pushes the conversation further. Rather than assuming that all mineral demand is justified, JMT asks a more difficult question: “What extraction is truly necessary?” The idea of “indispensable extraction” challenges the current model by arguing that only minerals essential for genuine social well-being should be mined, and only within strict ecological limits. It also calls attention to global inequalities, where high levels of consumption in the Global North continue to drive extraction in the Global South, often at significant social and environmental cost.

For institutions like the ADB, these contending principles raise critical questions about direction and responsibility. Aligning with a just energy transition means more than supporting mineral supply, but it requires embedding strong guardrails into every stage of investment, from project design to implementation. It also means recognizing limits that any support for the extractives can or should be justified under the banner of climate action. If the ADB continues to operate within outdated policy frameworks of client countries or relies on weak standards, especially for private sector lending, it risks reinforcing the very inequalities and harms these principles seek to address. Ultimately, the challenge is not just to make mining less harmful, but to rethink its role entirely by ensuring that the transition to clean energy does not come at the expense of people, ecosystems, or future generations.

VII. Cardinal Sins ADB is committing vis-à-vis CM Mining

Across the discussion, it was emphasized that ADB’s commitment to CM mining poses a grave threat to people and the planet. While the Bank acknowledges the inherent risks of mining, it continues to engage through significant loopholes in both policy frameworks and practice.

Beyond its historical involvement in the Marcopper disaster, recent engagements include technical assistance and private sector financing for mining activities with concerning track records.

In December 2023, ADB approved its first-ever Climate-Smart Mining technical assistance in Mongolia, amounting to USD 500,000.

Framed as support for economic diversification and climate goals, the initiative seeks to position Mongolia as a key supplier of critical minerals by creating an “enabling environment” for rare earth extraction. However, affected communities warn that this risks deepening the country’s dependence on mining (already over 90% of exports) while weak safeguards obscure serious environmental, social, and human rights risks.

These include threats to water sources, grazing lands, public health, and the survival of nomadic herding livelihoods that sustain key industries like wool and cashmere. Concerns over limited transparency, inadequate consultation, and potential repression of environmental defenders further highlight tensions between economic ambitions and a genuinely just and accountable climate transition.

Similarly, ADB's USD 300 million financing for the Reko Diq Mining Company (a subsidiary of Barrick Gold Mining), its first direct investment in a critical minerals project in the region, raises serious concerns.

Located in a highly militarized area with restricted civic space, the project faces reports of enforced disappearances and repression, making meaningful stakeholder engagement nearly impossible.

The classification of the Baloch people as an "ethnic minority" undermines their right to FPIC, while environmental and health risks, ranging from groundwater depletion to toxic exposure, threaten both communities and livelihoods. Its reliance on a heavy fuel oil power plant, with significant projected emissions, further contradicts climate goals.

These red flags suggest that investing in such fragile contexts risks undermining ADB's own safeguards, which leaves a critical question: Why does the Bank continue to reinvent its troubled legacy in the extractives sector?

Since the Paris Agreement, ADB has updated its policies and financing to promote low-carbon development. Despite these reforms, there are several concerns from civil society and affected communities about the persistent structural and governance gaps.

With this, the NGO Forum on ADB initiated the "**Seven Cardinal Sins**", which serves as a framework to evaluate this context across several key areas. This includes policy and reforms oversight, evaluation of safeguards policy, stakeholder realities, and accountability gaps.

The Seven Cardinal Sins of ADB in Energy and Climate Policies

SIN 1 | Transparency deficit and inadequate information disclosure



This occurs when energy project information is not shared in a timely manner, which reduces transparency and limits the ability of stakeholders to engage effectively

SIN 2 | Exclusion



This weakness involves the failure to meaningfully consult with communities and stakeholders during the design of projects and the development of policies

SIN 3 | Risk of retaliation and coercion



This refers to environments where individuals who raise concerns about energy projects face threats or retaliation

SIN 4 | Local grievance redress failure



This identifies the failure of local grievance mechanisms to provide effective and timely remedies for those affected by energy projects

SIN 5 | Lack of accountability



This weakness highlights the lack of consistent accountability for private sector borrowers and financial intermediaries under the ESF.

SIN 6 | Harm overrides 'Do No Harm'



This occurs when climate commitments and the 'Do No Harm' principle are not fully respected during the planning and implementation of projects.

SIN 7 | Weak governance & poor monitoring



This refers to weak supervision by the Board and management, which reduces overall accountability and undermines the delivery of necessary safeguards.

With ADB's growing involvement in critical minerals mining under its CM2CET initiative, the more it exposes its partner countries, especially the developing member countries, to deep troubles. Using the "Seven Cardinal Sins" framework, these concerns reveal a pattern of structural and governance failures that risk repeating the historical harms associated with extractive industries. Viewing this, it will also reinforce longstanding issues of opacity, exclusion, weak accountability, and misaligned climate commitments.

For the first sin, it is evident in the **lack of transparency** surrounding ADB-supported initiatives. The use of confidentiality clauses and non-disclosure practices limits access to critical project information, preventing stakeholders and affected communities from fully understanding the scope and risks of mining activities. This opacity is compounded by unclear traceability mechanisms for critical minerals, raising concerns about whether these resources are truly used for clean energy or diverted elsewhere. As noted in previous section, such practices "limit public oversight" and restrict access to essential information.

Closely linked is **Exclusion**, where meaningful consultation with affected communities is insufficient. The ADB has been criticized for advancing projects rapidly without adequate stakeholder engagement, undermining principles. Communities, particularly Indigenous Peoples, are often excluded from decision-making processes that directly affect their lands and livelihoods. This is very evident with the lack of outreach during the information sessions done by the Bank before launching CM2CET.

This exclusion reflects a broader prioritization of project timelines and economic objectives over participatory governance.

The third sin, the **risk of retaliation and coercion**, emerges in the broader contexts in which ADB-supported projects operate. Mining regions are frequently characterized by militarization and restricted civic space, where individuals who voice concerns face threats, harassment, or even violence. The discussion further highlights cases of enforced disappearances and repression of environmental defenders, indicating that dissent is often met with severe consequences. While ADB may not directly perpetrate such acts, its engagement in these environments without robust safeguards effectively enables these conditions.

Local grievance redress failure, the fourth sin, refers to the failure of grievance and remedy mechanisms. Historical cases such as the Marcopper mining disaster illustrate how affected communities continue to suffer long-term environmental and health impacts with limited rehabilitation and unresolved accountability. This could happen in other cases where the Bank is engaged or will be engaging in the future. The persistence of such outcomes suggests that existing mechanisms are inadequate in delivering timely and effective remedies, leaving communities without recourse.

The fifth sin, highlights **accountability gaps**, particularly in ADB's reliance on private sector actors and financial intermediaries.

By channeling investments through junior mining firms and intermediaries, the Bank creates distance between itself and project-level impacts.

It was underscored that actors often lack the capacity or track record to uphold environmental and social standards, increasing risks of corruption, regulatory bypass, and harm to communities. Consequently, accountability becomes difficult to enforce.

The sixth sin reflects the **contradiction** between ADB's climate commitments and its support for extractive activities. Framing mining as "climate-smart" or part of climate finance risks greenwashing, as it repackages environmentally harmful practices under a sustainability banner.

Projects such as those relying on carbon-intensive energy sources further undermine the Bank's "Do No Harm" principle, revealing a disconnect between stated goals and actual outcomes.

Finally, **Oversight Failure** underscores weaknesses in governance and institutional supervision. The ADB has been criticized for advancing its CM2CET initiative without a fully developed framework or robust safeguards in place.

This premature implementation raises concerns about whether the Bank has adequately learned from past failures in the extractive sector. Weak oversight at the board and management levels ultimately undermines accountability and the effectiveness of safeguard policies.

This application of the sins reflects a broader pattern of systemic governance failures of ADB across its portfolio and its development approach.

While ADB presents CM2CET as a way to support a cleaner, low-carbon future, the reality is more complicated. It even becomes far-fetched from that based on the evidence presented in this report.

Further, this CM mining approach risks repeating the same mining practices that have long harmed communities and the environment.

Problems like lack of transparency, limited community involvement, weak accountability, and contradictions in climate goals make it hard to fully trust the Bank's claims of being "sustainable."

And when these issues are repeated over time, they become cardinal. They are not isolated problems, but recurring and signal systemic failures from the Bank.



VIII. Recommendations

From the years of campaigning, the Forum Network allies provide a set of recommendations and key demands to ADB regarding their policy on CM mining. Given the risks and governance gaps identified in ADB's growing involvement in critical minerals mining, the Bank must move beyond narrow climate framing and adopt a more just, transparent, and accountable approach.

Remove Climate-Smart Mining from climate finance.

Mining-related support should not be presented as climate action when it carries well-documented risks of environmental destruction, displacement, and human rights violations. Continuing to classify such activities under climate finance weakens the credibility of ADB's sustainability commitments.

Recognize that the "criticality" of minerals is neither universal nor fixed.

There is no universal definition of criticality as it depends on each country's own context, development needs, and resource conditions. This means the Bank should not impose a single framework driven mainly by global supply chains or the consumption needs of the Global North. Instead, decisions on whether extraction is justified should be determined by the countries and communities most affected, and should be tied to broader national development strategies rather than external market demand alone.

Stronger transparency and accountability mechanisms must be established across the entire value chain.

This includes full disclosure of contracts, project risks, ownership structures, and mineral traceability, alongside binding commitments to transparency frameworks such as EITI and freedom of information standards. Without such measures, public oversight remains weak, and affected communities are left without meaningful access to information.

Ensure genuine community participation and respect for local autonomy.

This requires more than consultation at the formal level; it demands meaningful engagement with affected communities, full respect for Indigenous Peoples' rights and FPIC, and recognition of the decisive role of local governments and communities in shaping development pathways.

Adopt clearer substantive safeguards, including the recognition of no-go zones in ecologically sensitive, culturally significant, and conflict-affected areas.

The report demonstrates that critical minerals extraction often takes place in environmentally fragile, water-scarce, culturally significant, or politically tense regions. In such contexts, safeguards alone may not be enough. ADB should recognize that some places should simply not be opened to extraction, particularly Indigenous territories, biodiversity-rich ecosystems, conflict-affected regions, and areas essential to local livelihoods and cultural survival.

Prioritize material conservation and circular economy strategies that reduce dependence on new extraction.

Rather than focusing narrowly on expanding mineral supply, ADB should support policies centered on reducing material demand, strengthening reuse and repair systems, and promoting safer forms of production that minimize environmental harm.

Adopt a clear no support for war principle.

Without clear safeguards, there is a risk that projects framed as climate-related may indirectly support militarization or geopolitical competition.

ADB must therefore ensure that its financing does not contribute to armed conflict, military supply chains, or geopolitical resource struggles under the cover of development or decarbonization.

Align the CM2CET agenda with the United Nations Secretary-General's Guiding Principles on Critical Energy Transition Minerals and the broader principles of a just energy transition.

This means ensuring that the transition to clean energy does not reproduce extractivist patterns in which the environmental and social costs are borne by vulnerable communities while the benefits are captured elsewhere.

Without these reforms, ADB risks reinforcing the unequal structures that have long defined the extractive sector.

IX. CONCLUSION

The evidence provided in this brief points toward an uncomfortable conclusion that the global critical minerals agenda is not primarily an energy transition, but of a power struggle.

Behind the language of energy transition and clean technology lies an increasingly visible race for supply chain dominance, technological supremacy, and geopolitical leverage. Unfortunately, the urgency of decarbonization has become a convenient smokescreen for objectives that have little to do with climate and a just energy transition.

Reframing matters enormously for how we evaluate institutions like ADB. By positioning itself as a primary driver of the critical minerals sector in Asia and the Pacific, the Bank risks being co-opted into a geopolitical architecture it did not design but is nonetheless serving.

The CM2CET initiative, whatever its development intentions, is operating in an environment where mineral demand is shaped as much by military-industrial imperatives and great power competition as by genuine clean energy needs.

Without explicit safeguards against this entanglement, and without clarity on where these minerals ultimately flow, ADB cannot credibly claim that its investments are climate finance. The loophole between "energy transition" and "strategic minerals" is being actively exploited, and development banks are reinforcing them for those who benefit most.

The governance failures documented in this brief are also structural. The lack of transparency, exclusion of affected communities, accountability gaps in private sector lending, and weak oversight of environmental and social risks are glaring features of how ADB operates across its portfolio.

What is new is the scale of ambition, the compressed timeframe, and the geopolitical environment in which these failures are now operating.

As cited, these are manifested through targeting junior mining firms with limited track records, operating under domestic legal frameworks decades out of date, in regions characterized by militarization and restricted civic space, represent a combination of risk factors that ADB's current safeguard architecture is not addressing.

There is also a deeper question this brief raises but that the global community has yet to fully reckon with.

The scale of extraction required by current clean energy deployment models is inseparable from the scale of consumption in wealthy economies.

A just minerals transition cannot only address how minerals are extracted, but it must also interrogate why so much is needed and who benefits.

Demand reduction, circular economy strategies, material efficiency, and genuinely redistributive technology transfer are indeed central to whether any version of the energy transition can be called just.

For ADB, the path forward requires a fundamental reconsideration of the assumptions embedded in CM2CET; that supply expansion is the primary lever, that the private sector is the primary vehicle, that climate finance classification is appropriate for activities with documented harm potential, and that the geopolitical race for minerals is a context to navigate rather than a dynamic to resist.

To end, the communities of West Papua, Marinduque, Balochistan, Gobi, and all mining-impacted regions have already paid enough for transitions that did not benefit them.

Therefore, ADB and other MDBs must halt these efforts and reject their troubled pattern in the extractives.

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