Task Force 02
SUSTAINABLE CLIMATE ACTION AND INCLUSIVE JUST ENERGY TRANSITIONS

Charting a People-Centred Minerals Strategy to Safeguard Indigenous and Land-Connected Communities in the Global Energy Transition

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Abstract

Resource-rich countries of the G20 face a new policy paradox in the transition away from fossil fuels.[1] Critical minerals are essential for low-carbon technologies, but the scale and pace of mining required to meet demand poses risks to the environment and communities at a local level. It is estimated that 69% of global reserves of critical minerals are located on the lands of Indigenous and land-connected peoples.[2]

This policy brief builds on the G20 New Delhi Leaders' Declaration (2023) commitment to support "*reliable, diversified, sustainable and responsible supply chains for energy transitions, including for critical minerals*", and other important initiatives, such as the Panel on Critical Energy Transition Minerals appointed by UN Secretary-General António Guterres in April 2024. The recommendations align with the Sustainable Development Goals 7, 10, 12, 13 and 16, and the mining policy frameworks of the Intergovernmental Forum on Mining (IGF), the AU, EU and other intergovernmental organisations.[3]

We recommend a G20 Safeguards in Minerals Mapping and Analysis Programme (SiM-MAP), for identifying and synthesising data on the intersection of critical minerals with areas of social and environmental risk, to better inform public policy and regulation.

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[1] Karl, T. (1997) *The Paradox of Plenty: Oil Booms and Petro-states* is a seminal work on natural resource governance in the Twentieth Century.

[2] Owen, J.R., Kemp, D., Lechner, A.M. *et al.* Energy transition minerals and their intersection with land-connected peoples. *Nature Sustainability* 6, 203–211 (2023).

[3] See, for example, the African Mining Vision Action Plan (2011) and the Association of Southeast Asian Nations Minerals Cooperation Plan (AMCAP-III, 2021-2025).

The programme would exchange knowledge of where minerals exploration and development overlaps with sensitive areas, and other risk factors, such as low human development, food and water insecurity, gender inequality, high biodiversity value, cultural heritage, conservation and conflict-affected areas. Recommendations include to better integrate safeguards for mining projects within regulation and fund in-depth social science research on critical minerals development. Strategic partnerships, dialogue and participatory monitoring of policy implementation draws on the local knowledge systems of Indigenous and land-connected peoples for a just energy transition.

Diagnosis of the Issue

Definition of key concepts

- **Critical minerals** are non-fuel minerals deemed essential to a country's economy, security and technology needs, including for renewable energy technologies and infrastructure, which have a risk of supply chain disruption. These may include minerals and metals such as copper, cobalt, aluminium, lithium, nickel, graphite, platinum and rare earth metals.[4] Lists of critical minerals vary across countries and need to be updated regularly as new discoveries, supply chains and technologies emerge.

- **Land-connected peoples** are Indigenous peoples and peasants as reflected in the United Nations Declaration of Indigenous Peoples (UNDRIP) and the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP).[5] In Africa, the term 'highly vulnerable rural minorities' is used, for example, by the African Development Bank Group's Integrated Safeguards System, 2023, and includes Indigenous Peoples recognised in national law.[6]

- **Social safeguards and performance standards** are the policies, procedures and measures intended to identify, prevent, mitigate and compensate for adverse social impacts of large-scale development projects.[7] Requirements, for example, of the public

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[4] Lèbre, E. *et al* (2020).

[5] Owen, J.R. *et al* (2023).

[6] African Development Bank Group (2023). *Integrated Safeguards System (Updated)*, p.18.

[7] Tello, R. (2015).

and private sector multilateral lending institutions include meaningful engagement, free, prior and informed consent (FPIC), negotiation of equitable benefit-sharing and participatory decision-making.[8] The COP28 Final Agreement recognises the need for "*ensuring social and environmental safeguards*" and acknowledges, "*...when taking action to address climate change, respect, promote and consider... the rights of Indigenous Peoples, [and] local communities...*"[9]

Critical minerals data and policy gaps affecting land-connected peoples

The G20 countries are looking to produce and source the reliable supply of critical minerals in significant quantity and quality to build renewable energy technologies and infrastructure for an energy transition. Cut off ore grades are decreasing, while depths of prospective mineral deposits are increasing. This means more waste, and potentially more tailings from mining, posing a risk to local communities and the environment.

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[8] See, for example, the IFC Performance Standards, the World Bank's Environmental and Social Safeguards and updated Environmental and Social Framework, the African Development Bank's Integrated Safeguards System, 2023; the Asian Development Bank's Safeguard Policy Statement, 2010, covering safeguards on environment, involuntary resettlement and Indigenous Peoples; the Inter-American Development Bank's Environmental and Social Policy Framework, 2021; the OECD (2017), OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, OECD Publishing, Paris.

[9] Preamble to the Outcome of the First Global Stocktake, Decision CMA.5, Conference of Parties to the Paris Agreement, 5th Session 30 November-12 December 2023.

Demand for responsible investment and sourcing of critical minerals is increasing from downstream buyers, consumers, and regulators of material supply chains for electric vehicles, solar panels, wind turbines and other technologies. The rights of Indigenous and land-connected peoples affected by mining requires inclusive and holistic policy on critical minerals development. The G20 has a strategic role in conserving forests, however with energy transition commitments, member countries are faced with the challenges of deforestation and a disconnect between mining and forest conservation, notably due to the location of the critical mineral deposits.

Based on extensive research and currently available data, it is estimated that 69% of global reserves of critical minerals are located on the lands of Indigenous and land-connected peoples (see figure 1 below).[10] There are limitations in global data about the location and footprint of mining, due to the pace of development, lack of disclosure from companies and governments in the context of geopolitical competition for critical minerals.[11] Policymakers have significant knowledge gaps about where and how changes in the mining footprint may affect local communities and the immediate environment on and around mining concessions.

Demand for critical minerals will not increase in a linear, predictable pattern as rapid technological innovation, supply disruptions and market speculation contribute to extreme commodity price volatility. Uncertainty about where, when and for how long new mining takes place is a social and economic risk for G20 governments and their peoples.

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[10] Owen, J.R. *et al* (2023).

[11] Maus, V. and Werner, T. (2024).

Disparities of wealth and poverty, rights and opportunity within member countries highlight the need to disaggregate data on the social impacts of mining for well targeted policymaking. Critical minerals policy which overlooks the subnational data can mask the risks of mining in remote and marginalised localities. For example, our studies show that the most intensive critical minerals development in Australia is taking place in some of the most disadvantaged local government areas in the country.[12]
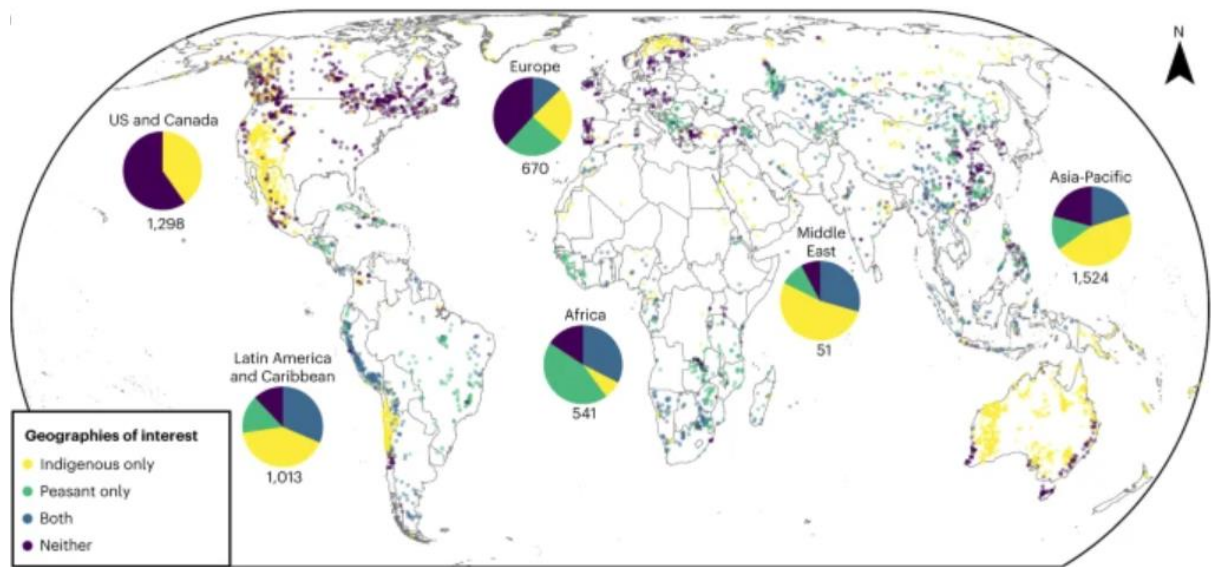
FIGURE 1: Estimated distribution of critical minerals by Indigenous peoples' and peasant land. Source: Owen, J.R., Kemp, D., Lechner, A.M. *et al* (2023).

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[12] Burton, J. *et al* (2024).

The G20's role

As an inclusive forum for international economic cooperation, climate action and sustainable development, the G20 is uniquely positioned to address the human development dimensions of critical minerals development and trade. Together, the G20 member countries can also bridge the energy security and resource-led development priorities of the Global South and the Global North, putting collaborative energy transition strategies first.

The G20's role in safeguarding the rights and lands of Indigenous and land-connected peoples in the development of energy transition minerals may be summarised as follows:

Recognition and inclusion: Incorporate social safeguards and performance standards for critical minerals development projects into national, regional and multilateral critical minerals strategies, such as the G20 Voluntary High Level Principles for Collaboration on Critical Minerals for Energy Transition, including recognition of the *UN Declaration on the Rights of Indigenous Peoples (UNDRIP)* and specifically free, prior and informed consent.

Knowledge sharing: Promote knowledge exchange, collaboration and data sharing within and between G20 countries by establishing a programme to map and analyse the intersection between critical minerals and socially and environmentally sensitive areas.

Policy harmonisation: Encourage member countries, the African Union (AU) and European Union (EU) to align their critical minerals strategies, mining laws and policies with international safeguards and performance standards for responsible, sustainable mining and minerals supply chains.

Financial support: Call on member countries to commit a minimum of 5% of their critical minerals and energy research budgets and incentive schemes to fund social science and public policy research on the social dimensions of mining for the energy transition.

Participatory monitoring and evaluation: Provide a G20 platform for Indigenous and land-connected peoples to monitor and evaluate the implementation of safeguards for their rights and lands affected by critical minerals development.

Strategic partnerships: Foster equitable and mutually beneficial international partnerships to achieve a just energy transition, focusing on win-win scenarios for global and local sustainable development goals.

By engaging in these efforts, the G20 can foster more responsible and sustainable minerals development contributing to a just energy transition.

Recommendations

1. **Strengthen and reiterate Principle 1 of the G20 Voluntary High Level Principles for Collaboration on Critical Minerals for Energy Transition**. In line with the Brazil 2024 priority to address the social dimensions of the energy transition, an amendment should be added as follows:

"Principle 1:

[Recognise] C*critical minerals are important for the energy transition and there is a need to develop and build a stable, reliable, responsible and sustainable value chain of such minerals, adhering to national Environmental, Social and Governance Standards.*
[Respect and protect the rights and lands of Indigenous and land-connected peoples in critical minerals development, and engage host communities in decision-making about mining for a just energy transition.]

2. **Establish a G20 Safeguards in Minerals Mapping and Analysis Programme (SiM-MAP)** for identifying, locating and synthesising data on the intersection of metals and minerals with areas of social and environmental risk to better inform national, regional and G20 countries policies and regulation of critical minerals development. SiM-MAP would support:

- **Knowledge Exchange Forum** as an open access hub for geological surveys and mining specialists to interact and share information with local communities, Indigenous and land-connected peoples

- **Data Repository** for geospatial, social and environmental data on critical minerals development locations

- **Policy Incubator** providing guidance for sustainable, responsible critical minerals development

- **Country-level research hubs** for sharing data, methodologies, co-authored publications, and collaboration.

- **Training and Capacity Building Hub** for the effective use of the data and policy implementation.

3. **Develop and harmonise critical minerals strategies and legal frameworks.** Advise member countries on how to strengthen social safeguards appropriate to their own country risk profiles, and then align their national, subnational and regional critical mineral strategies to the leading international safeguards and performance standards. Advise AU member countries to align their national policies with the Africa Mining Vision and the Africa Green Minerals Strategy. Encourage member countries to undertake IGF Mineral Policy Framework Assessment or equivalent national regulatory reviews of safeguards for critical minerals development, including social impact assessment and reporting at all stages of the life of a mine, including for expansion and mine closure planning. Review and strengthen regulation within member countries of social, health, gender, human rights impacts, loss of cultural heritage, biodiversity, land, water and air pollution, corruption and conflict risks, safety and disaster risks during and long after mining. Strengthen the negotiating position of land-connected peoples impacted by mining through harmonisation of legal requirements for meaningful community consultation and agreement-making.

4. **Commit a defined portion of member countries' critical minerals research and development funds to social science research and implementation**. The funds may be used to build the capabilities of integrated research teams to synthesise GIS data collection, mapping of geological and mining locations with social and environmental risk modelling and impact assessment. While the governments of the G20's largest

economies have made sizeable budget allocations to the development of critical minerals, these grants and incentives have largely been directed towards geoscience and geological surveys, mineral processing and technological innovation, value-addition and economic competitiveness. Greater financial commitment to upholding social safeguards and performance standards is needed to substantiate the principles adopted by member countries.

5. **Place the voices of Indigenous and land-connected peoples at the centre of climate-focused minerals policy within the G20.** Invite representative organisations of Indigenous and land-connected peoples from G20 member countries to participate in monitoring the implementation of these policy recommendations. Enable local, traditional and Indigenous knowledge and stewardship of nature to inform regulation of the mining industry towards a just energy transition.

6. **Provide support for capacity building in the Global South:** Investments in training and capacity building to tap the full benefits of minerals needed towards the energy transition, alongside supportive policies that will attract investment is necessary to achieving a just energy transition and meeting sustainable development goals. Support should be provided to build capacity to better manage forests and create value addition beyond mining in resource rich rural areas. Environmental impact of mining in forested areas needs to be further investigated and regulated. Alongside social safeguards, forest smart mining guidelines should be established in collaboration with G20 countries, Indigenous and land-connected peoples.

Scenario of Outcomes

Scenario 1: **Global energy transition stalled by social conflict, litigation, opposition and supply chain disruptions**

Fast-tracking of critical minerals projects without social safeguards has unintended consequences of mining and supply chain disruption, due to social conflict, human rights abuses and localised environmental degradation. Weak governance of opaque minerals exploration and extraction, approvals, fiscal arrangements and financial flows enables corruption in the resource sector, diverting revenues needed for sustainable development.[13] There is community resistance to mining operations and open conflict within communities, as well as between communities, mining companies and the state. Such conflicts are used by special interest groups to critique the energy transition and defend the ongoing use of fossil fuels.

Public pressure to avoid sourcing minerals from conflict-sensitive areas leads to divestment from mining jurisdictions reliant on mineral revenues, further fuelling state fragility and conflict and translating into supply disruptions that undermine green energy value chains. Geostrategic competition for the dominance of low carbon technology value chains intensifies, undermining multilateral cooperation (including the G20 as a key multilateral institution). These dynamics drive up the costs of critical minerals, undermining the competitiveness of green energy sources vis a vis fossil fuel-based energy sources, delaying the energy transition and exacerbating climate change.

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[13] Sturman, K. *et al* (2022).

Scenario 2: Energy transition proceeds with an adequate volume of minerals, but at a high cost to Indigenous and land-connected peoples in vulnerable areas.

New critical minerals projects are established, and existing operations expanded at an adequate rate to support a rapid and comprehensive energy transition, allowing for the achievement of the Paris Agreement goals of limiting global temperature rise to under 1.5°C. However, geostrategic competition to dominate green energy value chains puts pressure on governments to fast-track mining approvals, weakening due diligence and regulation for strategic projects.

Vulnerable communities in high-risk areas are further marginalised, and the ecosystem health on which these communities rely for their livelihoods is undermined by pollution and site clearing for mining operations. Access to natural resources and sites of cultural significance is blocked as mine sites expand. Community resistance and conflict increases, and is repressed by state and private security, leading to human rights abuses. The rush for critical minerals tests resolve towards conservation.

The energy transition proceeds, but at the cost of the sustainable development, and cultural and environmental integrity, of Indigenous and land-connected peoples.

Scenario 3: People-centred minerals policy contributes to a just energy transition

G20 member countries have the vision and foresight to acknowledge, respect and protect the rights and lands of Indigenous and land-connected peoples and listen to the voices of local communities affected by mining when developing critical minerals for the global energy transition. The energy transition continues to accelerate, leading to the achievement of the Paris Agreement temperature goals. At the same time, the expansion of mining operations for critical minerals contributes meaningfully to the sustainable development of the countries and regions where these minerals are found.

Governments and business partnerships form to remedy poor mining practices of the past. Economic linkages, including local processing and green technology value chain development, creates opportunity for local communities, supporting a just energy transition and generating buy-in from local communities. Social and environmental safeguards are respected, and tensions within communities regarding existing or planned mining activities are sensitively managed. The principle of free, prior and informed consent is respected. Geostrategic tensions around the dominance of green technology value chains are mediated and mitigated through the multilateral system. Indigenous and land-connected peoples are at the forefront of stewardship of the Earth, balancing global climate action with local natural resource governance and protection of nature.

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