

ICMM Submission to the COP30 Presidency Roadmap on the Transition Away from Fossil Fuels in a Just, Orderly and Equitable Manner

Introduction

The minerals and metals sectors sit at the centre of the global energy transition. As economies electrify, energy systems decarbonise and digital infrastructure expands, demand for minerals and metals is increasing rapidly. These materials are essential for clean energy technologies, grids, storage, transmission networks and broader industrial transformation. Any credible roadmap on a just transition away from fossil fuels must, therefore, recognise that responsibly produced minerals and metals are foundational enablers of that transition.

This has two implications. First, the transition away from fossil fuels depends not only on reducing emissions across energy systems, but also on securing the material inputs needed to build the alternatives at scale. Secondly, the legitimacy and durability of the transition will depend, in part, on whether those materials are produced, processed and supplied under responsible practices that support environmental protection, social performance and inclusive economic development.

From ICMM's perspective, the COP30 Presidency Roadmap should be guided by three principles:

- 1.** The transition away from fossil fuels must be approached as a whole-system transformation. Efforts to accelerate clean energy deployment will fall short if mineral supply, industrial capacity, infrastructure and permitting constraints are treated as secondary considerations.
- 2.** The Roadmap should remain facilitative rather than prescriptive. Countries are starting from very different positions in terms of energy mix, resource endowments, infrastructure, institutional capacity and development priorities, making nationally determined pathways central.
- 3.** Implementation arrangements should be guided by principles of complementarity and additionality. New cooperation frameworks should reinforce existing institutions, standards and initiatives, avoid duplication, and focus on closing practical delivery gaps - particularly those relating to finance, infrastructure, capacity and responsible supply chains.

Against that backdrop, ICMM welcomes the opportunity to provide views on barriers to implementation, the levers that could accelerate progress, and the practical considerations needed to ensure that the transition is genuinely just, orderly and equitable.

1. Critical barriers preventing a transition away from fossil fuels

ICMM sees five interrelated barriers that continue to constrain progress:

- i.** A central barrier is the disconnect between climate ambition and the policy, investment and institutional conditions required for delivery. Clean energy deployment is accelerating, but the transition is highly materials-intensive and depends on coordinated action across climate, energy,

mining, trade, industrial and development policy. Where these frameworks are developed in parallel rather than as part of an integrated implementation strategy, mineral supply can be constrained by long permitting timelines, infrastructure bottlenecks, weak investment conditions and declining public trust. This slows the scale-up of clean energy systems, creates vulnerabilities across value chains and weakens overall policy coherence.

- ii. Many mining operations do not yet have access to the enabling conditions required for rapid decarbonisation. A significant proportion of mining production takes place in remote regions with limited grid connectivity, weak transmission infrastructure, high energy costs and/or restricted access to lower-emission technologies. In such contexts, operational decarbonisation is shaped not only by company ambition, but by the broader policy, financing and infrastructure environment.
- iii. The expansion of mineral supply does not automatically deliver equitable or sustainable outcomes. Where governance is weak, institutions are under-resourced, or responsible practices are inconsistently applied, supply expansion can generate social contestation, environmental harm and reduced public confidence. This in turn can slow project development and undermine the broader credibility of transition strategies. At the same time, even in some well-governed jurisdictions, public aspirations to accelerate the energy transition are not always matched by recognition that mined materials are essential inputs to that transition, nor by willingness to see the necessary mining and processing activity take place domestically.
- iv. Financial barriers remain substantial in many settings. Mining and associated infrastructure investments are capital-intensive, long-term and highly sensitive to policy uncertainty. In many developing and emerging economies, the cost of capital remains a major constraint on both new mineral supply and mine decarbonisation. Without better access to concessional finance, blended finance and risk-sharing mechanisms, many viable transition-enabling investments are likely to remain delayed.
- v. Just transition discussions do not yet sufficiently reflect the realities of mineral-producing countries and mining-affected communities. If the transition away from fossil fuels is treated only as an energy-system issue, there is a risk that environmental and social pressures are simply shifted geographically into upstream mineral value chains. A more credible approach must explicitly account for how transition demand is created, where its impacts are felt, and how benefits are distributed.

2. Levers for accelerating implementation of the transitioning away commitment

ICMM sees six practical levers that could help accelerate implementation:

- i. Stronger policy coherence should be treated as a first priority. Governments and international institutions should integrate mineral supply, industrial resilience and responsible production more explicitly into climate and energy transition planning. This would improve long-term visibility, strengthen investment signals and help ensure that the Roadmap reflects the practical interdependencies between clean energy deployment and material availability.
- ii. The COP30 Presidency should emphasise enabling conditions for implementation. In mining, emissions reductions often depend on factors beyond the mine fence, including reliable access to affordable clean electricity, transmission infrastructure, energy storage, equipment availability, supporting regulation and viable commercial models. Accelerating the transition therefore requires action not only on site-level technologies, but on the surrounding systems that make deployment possible.
- iii. Finance must be treated as a core implementation lever. Public finance institutions, multilateral development banks and development partners can play an important catalytic role by lowering

- the cost of capital for mine decarbonisation, renewable integration, grid connections and related infrastructure. This is especially important in developing and emerging economies, where financing constraints remain among the most significant barriers to implementation.
- iv. International cooperation should focus on complementarity and delivery support. Existing initiatives and institutions already cover many parts of the transition landscape, including responsible business conduct, environmental and social standards, due diligence and sectoral guidance. The value of new cooperation should therefore lie in addressing gaps, convening relevant actors, supporting technical exchange and improving implementation capacity, rather than creating overlapping frameworks.
 - v. The Roadmap should recognise the role of responsible practices in strengthening transition legitimacy. Robust environmental and social standards, due diligence approaches, traceability tools and stakeholder engagement frameworks are not peripheral governance add-ons. They are central to maintaining trust, reducing project risk and ensuring that the expansion of mineral value chains supports just and durable transition outcomes.
 - vi. There is a strategic opportunity to link mine decarbonisation with wider regional energy development. In many jurisdictions, mining demand can help anchor investment in renewable energy, transmission and associated infrastructure, with benefits that extend beyond the mine site. With the right policy and commercial frameworks, mining can therefore support broader energy access, regional growth and industrial development while lowering its own operational emissions.

3. Reflecting diverse national realities in a just, orderly and equitable transition

A just, orderly and equitable transition must be grounded in national circumstances. Countries differ significantly in their development levels, energy systems, fiscal space, institutional capacity, infrastructure constraints and economic dependence on fossil fuels and extractive industries. The Roadmap should therefore support nationally determined pathways rather than imply a single model for implementation.

Inclusive stakeholder engagement is equally important. Workers, communities, Indigenous Peoples and other affected stakeholders must be meaningfully engaged in decisions relating both to fossil-fuel transitions and to the expansion or transformation of mineral value chains. This is essential to managing trade-offs, building trust and ensuring that transition pathways are viewed as fair and legitimate.

The Roadmap should also reflect the principle of institutional fit. Different institutions have different mandates and comparative advantages. International transition frameworks should respect these specialised roles and avoid assuming functions that are better delivered through existing national systems, sector-specific processes or established international standards. A more effective approach is to support coordination, capacity-building and implementation across this landscape.

More broadly, just transition approaches should explicitly recognise responsibly produced minerals and metals as part of the solution. Too often, mining is discussed only through the lens of risk or impact, rather than also as a sector that enables decarbonisation, energy access and industrial development. A more balanced framing would better reflect the sector's dual responsibility: to reduce its own emissions and impacts, while supplying the materials required for the wider transition.

Recommendations to the COP30 Presidency

ICMM recommends that the COP30 Presidency Roadmap:

1. Explicitly recognise responsibly produced minerals and metals as foundational enablers of the transition away from fossil fuels.
2. Emphasise enabling conditions for implementation, including finance, infrastructure, permitting efficiency, grid access and technology deployment.
3. Support nationally determined and non-prescriptive transition pathways that reflect different national circumstances and development needs.
4. Promote complementarity with existing initiatives, standards and institutional mandates, while avoiding duplication.
5. Highlight the importance of responsible practices, due diligence, traceability and inclusive stakeholder engagement in strengthening transition legitimacy.

Conclusion

The transition away from fossil fuels cannot be delivered without the materials needed to build the systems that will replace them. For that reason, minerals and metals should not be treated as a peripheral consideration in transition planning, but as a core part of the delivery architecture.

A credible COP30 Presidency Roadmap should therefore link ambition with implementation realities. That means recognising the role of responsible mineral supply, focusing on the enabling conditions required for mine decarbonisation and supply expansion, supporting nationally determined pathways, and ensuring that new cooperation efforts add value through complementarity and practical delivery support.

ICMM would welcome continued engagement on how the Roadmap can better reflect these interdependencies and help advance a transition that is not only faster, but also more just, orderly and equitable.

About ICMM

ICMM stands for mining with principles. We bring together a third of the global metals and mining industry, along with key partners to drive leadership, action and innovation for sustainable development, ultimately delivering a positive contribution to society. Through collaboration, ICMM member companies set the standard for responsibly produced minerals and metals in a safe, just and sustainable world.

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