UNFCCC Submission:

Views on opportunities, best practices, actionable solutions, challenges and barriers relevant to the topic of the Sixth Dialogue under the UAE Just Transition Work Program (JTWP): "Holistic approaches to nationally determined just transition pathways for the industry sector: technology, innovation and equitable value chains."

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NRGI is an independent, non-profit organization that supports informed, inclusive decision-making about natural resources and the energy transition. We partner with reformers in government and civil society to design and implement just policies based on evidence and the priorities of citizens in resource-rich developing countries.

INTRODUCTION

NRGI's decades of research and engagement with policymakers and decision-makers in oil-, gas-, and mineral-rich low- and middle-income countries (LMICs) show that just transition pathways offer the most relevant and strategic approach to advancing both urgent development priorities and climate action.

The energy transition is driving rapid growth in demand for critical energy transition minerals. At the same time, recent diplomatic and market interventions are reshaping how minerals are traded, financed, and secured. These developments create both opportunities for sustainable development and significant distributional risks for low- and middle-income mineral producing countries that seek to harness their mineral endowment to advance their economic and industrial development.

Historically, minerals have typically been extracted and exported with little processing from LMICs (except for China). This imbalance has limited the benefits that the mining sector has generated for people in these countries, and the extent to which mineral extraction has enabled the development of mineral related or other industries.

Governments and civil society actors in low- and middle-income mineral-producing countries have long viewed domestic mineral value addition as one of the key pathways to capturing a greater share of mineral wealth, creating jobs, strengthening fiscal and export earnings, building industrial capabilities, fostering economic diversification, and supporting long-term structural transformation. Producer countries have long prioritized moving along the value chain to undertake mineral processing and the manufacturing of semi-finished and finished products. Their expectations and ambitions to develop value addition activities have increased in the past couple of decades, including as a key component of what a just transition and more equitable global value chains require.

This was clearly illustrated throughout the JTWP Fourth Dialogue, the Africa Climate Summit, and COP30, where parties and observers from low- and middle-income mineral producing countries consistently expressed their ambition to leverage their mineral endowments for development while retaining substantially greater economic value and reducing socio-environmental harms.

In this submission, NRGI explores how governments in low- and middle-income mineral-rich countries can advance just transition pathways for the mining industry sector, what internationally coordinated policy responses are needed to enable these best practices, and what role the JTWP can play in delivering them.

JUST TRANSITION PATHWAYS FOR THE INDUSTRY IN MINERAL-RICH LMICs

Based on its own research and that of partner organizations, NRGI recommends that mineral-rich LMICs define very clear and specific objectives and strategies to advance their ambitions to maximise national benefits from the sector, including through value addition. We summarize below best practices to inform the 6th dialogue on what is needed to enable a *value addition* pathway towards just transitions leveraging the mining industry sector in resource-rich countries.

→ Governments should define a clear strategy based on the long-term national development plan, nationally determined economic feasibility, market outlook and rigorous cost-benefit analysis of proposed projects.

In a context in which value addition occupies an important place in the broader discourse around mining in the context of energy transition, governments should evaluate whether mining value addition is the most effective strategy to reach national development goals. To do this, they should clearly define strategic objectives specific to individual minerals and stages of the value chain, and based on nationally determined

economic feasibility, market outlook, and rigorous cost-benefit analysis of proposed projects. This clarity is critical for informing government decision-making on the amount of political capital, time and money to spend, trade-offs to accept, and risks to take in attempting to progressively move along the value chain—and which value chains, and parts of these chains, to pursue.

Articulate goals: Governments may pursue one or more goals (create jobs; strengthen the public finances through higher government revenues, more foreign exchange and less exposure to commodity market volatility; support development of other sectors through cheaper inputs, and the transfer of knowledge and skills; improve infrastructure; or reduce their dependency on other countries. Clear goals are critical to inform assessment of whether and how the envisaged value addition can achieve them.

Assess feasibility: Governments must base their value addition strategy on a clear-eyed and nationally determined view of their country's current and longer-term potential comparative advantage in each value chain, and the feasibility of capturing value within the strategy period if this advantage does not already exist. A country's competitiveness further along a value chain depends on multiple factors (size of mineral supply, transport costs, availability of competitively priced, reliable, clean energy, competing capacity elsewhere, good governance, proximity to downstream markets, existence of an industrial base.) Governments should therefore ensure their strategies account for feasibility, and target mining value addition that leverages their comparative advantages. Countries' own sector-level feasibility assessments should be informed by rigorous, independent project-level feasibility studies as part of the mine licensing process. Project-level feasibility studies can help governments, and other actors such as development partners, identify missing success factors and the actions necessary to address them.

Analyze the market outlook: Governments must account for the market outlook in their strategies. Changes in technology can result in large shifts in demand for products and therefore affect the benefit of attempts to move along value chains. Governments should therefore be cautious about pursuing value chains that are highly exposed to technology risk.

Analyze trade-offs and costs, not just benefits: Governments should base value addition strategies on rigorous cost-benefit analysis. Even if a government realizes socioeconomic benefits from value addition, these benefits may not always outweigh the direct and indirect costs of the plan. These costs include environmental and social harm after the implementation of any anticipated avoidance and mitigation measures.

Value addition can also have opportunity costs such as the diversion of public funds or electricity away from other productive or social needs.

Governments must also consider the balance between pursuing value addition and other ways that citizens can benefit from their mineral wealth. For example, if a government achieves value addition through instruments such as export bans, discounted mineral prices or downstream subsidies, it might create jobs, but in some cases weaken the public finances and therefore reduce spending on other development priorities. Similarly, governments must consider how the political capital, time and money spent on pursuing value addition, and the impact on the economics of mining operations, affect the potential to develop local suppliers of products and services to these mining operations. The procurement of goods and services usually amounts to 50 to 70 percent of all money spent by mining companies in producing countries. Local procurement by mine operators is therefore also a considerable opportunity for countries to increase government revenue, create jobs and develop new sectors. A plan to use forward linkages to diversify requires a government to develop a broader industrial strategy that considers, for example, the optimal sequencing of the processing activity and the sectors to which it will link.

Design policy mechanisms tailored to the value addition strategy: Governments can use a range of instruments—including fiscal, industrial and trade policy—in pursuit of value addition. Governments should select their policy approach based on the goals, economic feasibility assessment, market outlook and cost-benefit analysis set out in the value addition strategy, as well as their capacity and geopolitical leverage. Most policy instruments can be broadly categorized as restrictions and penalties, incentives, or enablers. Different policies will be optimal for different countries and value chains.

→ Governments should involve citizens every step of the way and ensure their plans do no harm

Governments and companies must engage the public in value addition planning. Transparency and trust are essential to manage public expectations and to avoid governments pursuing value addition at all costs, for the benefit of only a few, privileged actors, or a backlash against the mining sector. Governments and companies must disclose and consult with the public on feasibility studies, environmental and social impact assessments and cost-benefit analyses they undertake for value addition projects. Governments should also encourage informed debate about the trade-offs involved, especially when opportunity costs are considerable. Governments and companies must ensure these processes are inclusive, in which marginalized groups are not only included

but actively engaged in shaping decisions. Accountability actors—such as parliamentarians, civil society organizations and media—must also play an active role and rigorously evaluate government and company plans.

Tackling corruption will be essential for designing fundable value addition projects and green industrialization strategies that provide a net benefit for people in producer countries. In the context of a transition minerals rush—characterized by geopolitical competition and ambitious value addition agendas—various corruption risks are likely to increase further. Some of the main risks that governments must address include policy capture (influence by private interests seeking to shape their design for personal gain), corruption risks in the licensing and permitting phases (the risks appear to be similar for licensing and permitting of processing facilities), corruption risks in the design, negotiation and granting of financial incentives embedded in value addition policies, undue influence or favoritism in infrastructure project selection, risks to the integrity of environmental and social impact assessments, community consultations and FPIC.

The principle of minimizing environmental and social harms must also be at the core of any government mining value addition strategy. Value addition, like mining, can cause significant environmental and social harms. It can lead to large swathes of forest being destroyed, create significant amounts of toxic waste, cause local air pollution as well as contribute to global carbon emissions, cause water stress and contaminate waterways and soil. The resulting impact on the health, livelihoods and general wellbeing of communities living near value addition facilities has been documented in countries including Brazil, China, Indonesia, Namibia and South Africa. Governments should prohibit mining and value addition in areas of particularly high environmental and social sensitivity. Governments often undervalue the environment due to pressure to prioritize short-term revenue and jobs. This risk is potentially even greater for value addition projects, with public support putting governments increasingly under pressure to deliver at all costs. Governments should also not proceed with value addition activities when Indigenous peoples and local communities have not been meaningfully involved in decision making, or the right to free, prior and informed consent (FPIC) has not been respected.

Failure to address the above risks would not only reduce the benefits from value addition in the short term but would likely deter investment in both mining and value addition projects in the long term.

COORDINATED POLICY RESPONSE NEEDS

Internationally coordinated policies and support are needed to allow LMICs to define and advance their own just transition pathways for the mining industry sector and mineral value chain activities in a way that provides a net benefit for their people. To help governments deliver on the above, the international community should:

→ Support strategy design

Technical and financial support. Many countries do not currently have sufficient resources or information to develop, implement and monitor detailed value addition strategies and policies, and conduct rigorous cost-benefit analyses of potential projects as defined above. Funding and technical support to authorities in these countries should therefore be increased to build these capacities and support strategy design.

Support should also include the rigorous preparation of the most promising value addition projects in emerging markets and explore where concessional finance may address identified feasibility gaps, prioritizing projects – such as infrastructure – that may have stronger spill-over effects on other sectors and industries.

Assess impact of geopolitical shifts. Coordination and technical capacity also need to be bolstered to assess the implications of initiatives[1] by major economies to redesign industrial strategies and secure access to minerals. Major economies' own industrialization ambitions not only intensify competition, but some of the government support deployed in these countries —in the form of trade restrictions, subsidy regimes and sustainability requirements—could impede other countries' value addition ambitions. This includes stockpiling as well as circularity goals, which both could have implications on mineral and processed goods demand.

→ Raise standards

Support countries' regulatory capacity. Raising global operational mining and industry standards is a key component of mobilizing both development and private finance to advance LMICs' ambitions in these sectors. Technical and financial support is hence also needed to strengthen producer country regulatory and enforcement capacity – where needed - to set and implement high standards.

[1] The European Union's Critical Raw Materials Act, the United States-led Forum on Resource Geostrategic Engagement , China's International Economic and Trade Cooperation Initiative on Green Mining and Minerals, the G7's Critical Minerals Resilience and Production Alliance, among others.

Support progress towards higher standards. International cooperation and finance flows should support progress towards higher environmental, social and governance standards in producer countries, including through supplementary funding flows for additional capacity dedicated not only to strengthened regulatory functions (as above) but also to the systematic use of cost-benefit assessments of value addition and national green industrialization plans to ensure they comprehensively evaluate the economic, human rights, social and environmental long-term gains and negative impacts of extraction and value addition projects, and to ensure they build on meaningful consultations with affected stakeholders. In this regard, the MDB Critical Minerals Joint Collaboration Framework announced in April can serve as a useful reference.

International finance flows intended to support higher standards should avoid establishing or imposing standards unilaterally in ways that condition the provision of finance or technical assistance. International coordination and dialogue are also needed to avoid market fragmentation and locking countries out of certain markets without the incentives and support to strengthen their standards and practices.

Involve civil society. National, regional and global efforts in this regard should involve policy expert and civil society networks that have been coordinating to strengthen mining sector standards for decades.

→ Foster co-construction of equitable international rules and partnerships

Ensure equal access to rule-making spaces. Low- and middle-income producing countries must be full participants in shaping plurilateral trade agreements, traceability mechanisms, standards-based markets or any other initiative or framework that can impact on mineral value chains and producing countries' prospects for their mineral and industrial plans. International cooperation should then foster dialogue and co-construction of mineral value chains that take into account LMICs' ambitions to harness their mineral endowment to develop their industry. This is critical to ensure global frameworks and partnerships support project preparation support, technical assistance, technology and skills transfer, institutional strengthening and investment in enabling shared-use infrastructure, notably power, water, logistics and transport in producing countries.

IMPLICATIONS FOR THE JTWP

To contribute to the international cooperation efforts to support the implementation of the best practices described above, the UNFCCC, the JTWP and the Just Transition Mechanism have roles to play.

NRGI recommends the following questions to be discussed at the **Sixth JTWP Dialogue:**

1. How can the JTWP and the Just Transition Mechanism support low- and middle-income mineral producing countries whose resources fuel the global energy transition through green industrialization and economic diversification, value addition?
2. What structural barriers constrain countries' capacity to formulate and execute green industrialization strategies?
3. What forms of support would enable them to develop approaches firmly grounded in national and regional development plans, conditions to enable feasibility, market projections, and rigorous cost-benefit analyses that integrate both project economics and anticipated socio-environmental consequences?
4. How can cooperative frameworks advance just transition pathways for the industry in mineral-rich regions? How can international fora, including the JTWP and the Just Transition Mechanism support regional integration in line with nationally determined strategies of participating states?
5. What mechanisms would strengthen due diligence, facilitate corporate accountability, reduce corruption and steer green industrialization efforts towards responsible practices, while avoiding unilateral barriers to trade?
6. What are the implications of emerging proposals related to standards-based markets in critical minerals for low- and middle-income mineral producing countries' industrialization plans?

In addition, we recommend discussing how the **Just Transition Mechanism** to be operationalized at COP31 can be leveraged by governments and stakeholders to address the challenges low- and middle-income mineral producing countries are facing to harness their mineral endowments to advance their industrialization goals.

NRGI wishes to emphasize the potential for The Mechanism to help identify needs and channel resources to support mineral-producing LMIC's efforts to strengthen institutional and regulatory environments conducive to responsible investment in the mining industry. To ensure the Mechanism supports just transition pathways, NRGI recommends that the consensus reached under the Secretary-General's Panel on Critical Energy Transition Minerals (the Panel) be recognized as the guiding principles for The

Mechanism's support for mineral producing countries. Effective alignment with the Panel's principles would require, among other things, coordinating with other UN-led efforts and crucially, the UN Task Force on Critical Energy Transition Minerals (the Task Force). Launched in December 2025, the Task Force aims to strengthen the UN system's ability to advance the Panel's principles and recommendations.

As the UNFCCC is itself a Task Force member, The Mechanism could constitute the articulation point between these efforts and leverage the Task Force technical clusters and country platforms in selected countries to strengthen international cooperation on mobilizing finance, technology transfers and institutional/policy capacity-building support, and creating fiscal and policy space for LMICs to leverage their mineral resources to advance on pathways towards low emissions and climate-resilient development, in line with Decision 2/CMA.7, paragraph 12, from COP30.