



## Summary of the 20th Annual General Meeting (AGM) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF): 18-20 November 2024

“Communities should not just survive mining; they should thrive from it.” As the mining sector powers the global transition to a green and digital economy, it needs to redefine the current paradigm to equitably distribute mineral and benefits, uplift communities, and protect the environment.

The International Energy Agency’s (IEA) [Global Critical Minerals Outlook 2024](#) warns that supplying the critical minerals that go into electric vehicles, wind turbines, solar panels, and other technologies underpinning the clean energy transition would require some USD 800 billion in investment in mining by 2040 to meet the 1.5°C goal under the Paris Agreement on climate change. The IEA’s 2024 Outlook highlights progress made by the mining industry on work safety, gender balance, community investment, and renewable energy use for mineral production. However, it also cites the need for improvements with respect to reducing waste generation, greenhouse gas emissions, and water consumption. It further notes that without “strong uptake” of recycling and reuse of critical minerals, mining capital requirements to meet the 1.5°C goal would need to be one-third higher.

The 20th Annual General Meeting (AGM) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) sought to address these and other issues. Meeting in 12 formal sessions over three days under the theme “Redefining Mining: Balancing the Need for Minerals with Protecting People and the Planet,” the AGM addressed:

- accelerating the production of critical minerals;
- the possible role of circularity in bridging the supply gap;
- incentivizing local value addition;
- putting people first, including with regard to respect for human rights in mining;
- the interconnection of critical mineral demand and gender equality and social inclusion;
- navigating the bewildering collection of global mining standards;
- protecting nature amid the energy transition;
- transforming mining through disruptive technologies; and
- the role of non-metallic minerals (NMMs) in the energy transition.

The 20th AGM of the IGF took place in person at the Palais des Nations in Geneva, Switzerland, from 18-20 November 2024.

## A Brief History of the IGF

The IGF serves as a global platform for dialogue among its member governments, as well as other stakeholders including mining companies, industry associations, civil society, and non-governmental and international organizations. The origins of the IGF can be traced to the 2002 World Summit on Sustainable Development (WSSD), which took place in Johannesburg, South Africa, and encouraged governments, civil society, and private sector actors to enter into voluntary partnerships focused on sustainable development objectives. The WSSD’s [Johannesburg Plan of Implementation](#) specifically called for efforts to address the environmental, economic, health, and social impacts and benefits of mining minerals, and metals throughout their life cycle. It also highlighted the importance of workers’ health and safety, and the role of transparency and accountability for sustainable mining.

Following the WSSD, the governments of Canada and South Africa were instrumental in establishing the IGF. In February

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2005, they announced the IGF as a voluntary initiative for national governments interested in promoting good governance in the management of mineral resources. The IGF currently has 85 members.

The IGF's work is largely framed by its flagship policy guidance and assessment tool, the [Mining Policy Framework \(MPF\)](#), which was initially ratified in 2010 by IGF members and was updated and ratified again in 2023. The MPF identifies best practices through six pillars of mining policy and law: the legal and policy environment; financial benefit optimization; socio-economic benefit optimization; environmental management; mine closure and post-mining transitions; and artisanal and small-scale mining (ASM).

In 2012, the UN Conference on Sustainable Development (UNCSD or Rio+20) convened to assess global sustainable development policy. Its outcome document, [The Future We Want](#), further boosted the IGF's work. Besides calling on the international community to negotiate a set of Sustainable Development Goals (SDGs), the Rio+20 outcome urged governments and businesses to promote accountability and transparency in the mining sector, as well as improve existing mechanisms to prevent illicit financial flows from mining activities.

In October 2015, the IGF Secretariat moved from its home at the Canadian Department of Foreign Affairs, Trade and Development to the International Institute for Sustainable Development (IISD) in Ottawa, Canada.

The IGF AGM first convened in 2005 at the Palais des Nations in Geneva, Switzerland, with the UN Conference on Trade and Development (now known as UN Trade and Development – UNCTAD) acting as host. and 25 member countries. AGMs have been hosted by UNCTAD at the Palais ever since.

AGMs provide a forum for members to engage with industry, civil society, and one another, and exchange best practices, knowledge, and ideas. Previous AGMs have discussed topics relevant to the MPF, including: fiscal and legislative frameworks for investment in the mining sector; revenue sharing; community engagement and benefits; the role of women in mining; and post-mining transitions, including mine closure and rehabilitation of mine sites. AGMs also present draft guidance on various aspects of sustainable mining before public release. Most recently:

- in 2016, the 12th AGM provided an opportunity for IGF members to consider the SDGs' relevance to the mining sector;
- in 2017, the 13th AGM produced the [IGF Guidance for Governments on Managing ASM](#);
- in 2018, the 14th AGM discussed the impacts of increased global lithium demand on mining, and the contribution of environmental and social impact assessments (ESIAs), tax reform, and community engagement in sustainable mining;
- in 2019, the 15th AGM discussed how companies are starting to reduce emissions from mining operations and adapt to changes in the environment, such as increased water scarcity and other disaster risks, and reviewed draft guidance on ESIAs, prior to its subsequent release;

- in 2020, the 16th AGM, which convened virtually during the COVID-19 pandemic, focused on how the mining sector is dealing with the pandemic and its impacts. It also considered how governments are responding to the crisis, and measures to implement the [Global Industry Standard on Tailings Management](#), published in August 2020;
- in 2021, the 17th AGM convened virtually to consider mining sector governance, including critical minerals, ASM, ESIAs, community engagement, gender equality, local content, partnerships, taxation, and new technologies. This gathering also officially launched the [IGF's Mining ESIA Tool \(MET\)](#), developed to analyze countries' environmental and social legal frameworks, practices, and institutional capacity in relation to ESIAs for the mining industry;
- in 2022, the 18th AGM discussed: government readiness to handle the rising demand for critical minerals and the resulting transitions; how to change resource taxation to best suit and take advantage of that demand; how legacy mines and waste might be re-mined for critical minerals; and how to ensure that local communities fully benefit from the rush to supply minerals for the energy transition; and
- in 2023, the 19th AGM focused on how to maximize the potential benefits from burgeoning demand for energy transition minerals (ETMs), while ensuring a just transition. Additionally, the AGM discussed: how to bridge the ETM supply gap; the role of ASM in the energy transition; how to ensure host communities fully benefit from mining projects; reform of tax and benefit sharing regimes; and how best to ensure a fair, equitable, and inclusive energy transition.

### Report of the Meeting

On Monday, 18 November, Greg Radford, Director, IGF Secretariat, welcomed delegates, noting that in its 20-year history, IGF has grown from 25 governments to 85, with representatives from 90 countries attending the 20th AGM in Geneva, Switzerland. He briefly presented findings from the report of the UN Secretary-General's Panel on Critical Energy Transition Minerals, [Resourcing the Energy Transition Principles to Guide Critical Energy Transition Minerals Towards Equity and Justice](#).



Greg Radford, Director, IGF Secretariat



**Pedro Manuel Moreno**, Deputy Secretary-General, UNCTAD

Pedro Manuel Moreno, Deputy Secretary-General, UNCTAD, highlighted UNCTAD's contributions, along with those of other UN entities, to the Panel's recommendations to establish a High-Level Expert Advisory Group to accelerate benefit-sharing, value addition, and economic diversification in the critical energy transition mineral value chain, and to develop a global traceability, transparency, and accountability framework for the entire mineral value chain.

IGF Executive Committee Chair Mohato Moima, Lesotho, emphasized that the current mining model needs to be redefined so that the sector supports economic development while protecting the planet and uplifting surrounding communities. He highlighted the Southern African Development Community's (SADC) work on a regional mining investment framework, and urged greater global collaboration, since "mining is a global enterprise, requiring global solutions."

Nathalie Bernasconi-Osterwalder, Vice-President, Global Strategies and Managing Director for Europe, IISD, focused on three aspects of the Panel's report: value distribution and equity; the mining sector's relationship with nature; and the role of mining in the circular economy. Noting the IGF's efforts to forge new partnerships to advance responsible mining practices, she urged all parties to work to "seize the moment to build a sustainable future together."

### **Setting the Scene**

On Monday, Adam Matthews, Chief Responsible Investment Officer, Church of England Pensions Board and Chair, Global Investor Commission on Mining 2030, noted that investors and the mining sector operate on different timelines: quarterly versus decades. He emphasized the importance of the Panel's recommendation for creating a Global Mining Legacy Fund.

Rohit Dhawan, President and CEO, International Council on Mining and Metals (ICMM), described mining as a spectrum between "abhorrent" and sustainable practices. He called for establishing a floor of minimum standards for mining industry responsibility. Dhawan drew attention to the [Consolidated Mining Standard Initiative](#), recalling that this initiative calls for an independent board to monitor implementation of the standard.

Gerald Mwila, Director, Geological Survey Department, Zambia, reviewed the challenges in the Panel's recommendation

on ASM. He stressed the urgent need to provide ASM with adequate technologies to understand the resources these miners are exploiting and for governments to be able to account for and generate revenues from their activities. Mwila recalled that all recommendations from the Panel are of equal importance and should be implemented collectively. He stressed Panel members' emphasis on greater benefit-sharing and value addition along the full mining value chain "from pit to port."

Yasuko Nishimura, Ministry of Foreign Affairs, Japan, discussed the Panel's recommendation on establishing targets and timelines for material efficiency and circular economy approaches in mining. She also underscored the multiple benefits of recycling.

### **Accelerating the Production of Critical Minerals**

Moderator Bernasconi-Osterwalder opened the discussion in this Monday session, underscoring the crucial roles in the energy transition of: legal frameworks and policies; global partnerships; and financial mechanisms to secure the capital needed for responsible mining investments, "especially in jurisdictions considered risky."

Clovis Freire, UNCTAD, noted that the energy transition will require "new technologies, new patterns of consumption and trade, new infrastructure, new partnerships, and new geopolitics." Stressing the key role critical minerals will play in a global transformation comparable to "when the world shifted from horses to cars," he highlighted the need for developing countries, whether domestically rich in minerals or not, to integrate themselves into global value chains for energy transition technologies.

Noting that demand for critical minerals in the European Union (EU) is expected to increase dramatically in the coming decades as a result of decarbonization, Roger Hamberg, Joint Research Centre, European Commission, drew attention to the EU's [Critical Raw Materials Act](#), which sets benchmarks for domestic capacities along the strategic raw materials value chain and for the diversification of EU supplies through, among other things, strategic partnerships with different countries.

Kitsiri Kaewpipat, Department of Primary Industries and Mines, Thailand, shared her government's efforts to streamline



**Nathalie Bernasconi-Osterwalder**, Vice-President, Global Strategies and Managing Director for Europe, IISD



**Kitsiri Kaewpipat**, Department of Primary Industries and Mines, Thailand

mine-permitting processes without compromising national development goals or environmental and social responsibilities. She described efforts to digitize the permitting process, minimize impacts to ecosystems and communities, and improve transparency and fairness through public participation, with the overall result of “enhancing the global competitiveness of the Thai mining industry.”

Adam Matthews highlighted the mining sector’s significant underrepresentation in investment portfolios, despite UNCTAD’s estimated investment needs for the sector of USD 360–450 billion for 2022–2030. To increase investments, he emphasized the need for regulatory alignment, clear investor expectations, and stronger collaboration between governments and industries to attract responsible investment. Matthews acknowledged the importance of a comprehensive mapping exercise to identify gaps and needs within the sector and proposed exploring blended financial models. He also called for structured investor engagement with platforms, such as the IGF and the UN Environment Assembly (UNEA), to enhance dialogue on regulatory frameworks and sustainable practices.

### ***Can Circularity Help Bridge the Supply Gap?***

Opening this Monday session, moderator Inga Petersen, Executive Director, Global Battery Alliance, stressed that meeting the anticipated battery demand by 2040 will require the opening of approximately 300 new mines to source critical materials such as lithium, copper, and nickel. However, she noted that the new [IEA report on critical minerals recycling](#) offers some hope on strategies to scale up recycling and urban mining.

Sarah Colbourn, Benchmark Minerals Intelligence, said that USD 1.6 trillion investment is needed to meet the expected 2040 battery minerals demand, with USD 190 billion for lithium alone. She remarked that “the sector is under pressure to scale, and scale quickly.” Colbourn suggested circularity will be key to minimizing waste and maximizing resource efficiency during the transition. She reviewed the [Benchmark’s Sustainable Index](#) to assess environmental, social, and governance (ESG) performance across the battery supply chain.

Christian Spano, Vale Base Metals, urged focusing on circularity and minimizing waste rather than recycling, which



Panel on: Can Circularity Help Bridge the Supply Gap?

would require more waste being generated before enough critical minerals can be recovered from it to help fill the gap.

James Barry, US Geological Survey, discussed efforts to inventory mines and mine waste in the US for the potential to recover critical minerals. He provided examples of pilot projects underway, including one looking at the potential recovery of rare earth elements from tailings, and another at the potential for recovering lithium from oil and gas produced water.

Elisa Tonda, UN Environment Programme (UNEP), presented a new [UNEP working paper](#) on circularity, equity, and responsibility in the quest for energy transition minerals. She then proceeded to outline the “8 Rs of an equitable green transition”: reduce, replace, rethink, reuse, retain, recover, recycle, and responsible mining. Tonda explained that a circular strategy could reduce mineral demand by 18% and recycling by 10%. She urged governments and the private sector to make circular products and processes more palatable for end-use consumers.

During the ensuing discussion with the audience, issues raised included:

- the needed behavioral changes for circularity to unfold at scale;
- traceability at the atomic level and the Global Battery Alliance’s [2024 Battery Passport pilots](#);
- market mechanisms and fiscal policies to support circularity;
- framing circularity around waste versus created value; and
- the management of tailings in Zambia.

The session concluded with the signature of a Memorandum of Understanding between the IGF and UNEP, formalizing their partnership to advance environmental sustainability in the management of mining, minerals, and metals.

### ***Fiscal Policies to Incentivize Value Addition***

Naadira Ogeer, Commonwealth Secretariat, moderated this Monday afternoon session.

Verónica Velasco, Internal Revenue Services, Ecuador, outlined the fiscal policy measures her government has implemented to incentivize the mining industry. She stressed the importance of applying a whole-of-government approach when developing and implementing these policies to offer clear tax rules, ensure institutional coordination, and critically assess the potential impact of mining operations.



Ekpen Omonbude, IGF Secretariat

Farirai Munyenyiwa, Ministry of Finance and Economic Development, Zimbabwe, shared her country's experience with implementing various incentives to attract investment and stimulate the local processing of mining outputs. She said these include import exemptions, differentiated export tax regimes, and the removal of customs duties on imported equipment to support in-country processing.

Ekpen Omonbude, IGF Secretariat, highlighted that many countries have implemented fiscal measures to incentivize value chain enhancement, such as export restrictions and varying royalty levels. He emphasized the challenge of balancing the various elements of the fiscal regime, cautioning that overly stringent measures could erode value or deter investment.

Noting that tax holidays risk prompting a "race to the bottom," Omonbude stressed that governments need to layer incentives appropriately, based on a comprehensive understanding of the economics of each mining project. He explained that if a project demonstrates profitability, there is "no rush to provide upstream incentives." Instead, Omonbude recommended prioritizing downstream incentives to alleviate cost pressures at the refining, processing, or smelting stages.

Questions from the floor addressed:

- the challenges countries face in balancing the need to raise revenues for public goods and services with the need to attract investments by offering tax advantages to the mining sector;
- the importance of governments monitoring and assessing the impacts of mining contracts over time to determine whether fiscal incentives are appropriate and take informed decisions on future contracts;
- the warning of one delegate, who said "If you can't quantify, you're likely to be losing out"; and
- the potential for neighboring countries with similar commodities to establish regional frameworks for fiscal incentives for critical raw materials, in order to improve the chances, through cooperation, of attracting investors further down the value chain.

### Putting People First

Moderator Tracey Cooper, Director, Inkoleko Communications, moderated this Tuesday session.

Thelma Halim, IGF Secretariat, presented the 2023 [update of IGF's MPE](#), with strengthened provisions on human rights.

She emphasized the right not to mine when the government determines certain conditions exist at the site, such as armed conflict, a lack of free, prior, and informed consent (FPIC), or an inadequate ESIA.

Maria Andrea Echazu, Office of the UN High Commissioner for Human Rights (UN Human Rights), said a human rights perspective puts people at the center of development processes and protects the planet. She focused on four dimensions of human rights in mining: the state's duty to protect; human rights due diligence; Indigenous Peoples' rights, including FPIC; and meaningful participation by affected communities at all project stages.

Alvaro Pardo, President, National Mining Agency, Colombia, acknowledged that mining, while strategic for the country, must be developed with respect for human rights, the needs of local communities, and protecting ecosystems. He pointed to Colombia's efforts to increase respect for human rights and environmental protection standards through the formalization of mining operations, aiming to improve the application of relevant regulations nationwide and combat illicit and unlawful activities.

Tatiana Alarcon, Engineers Without Borders Canada, discussed her organization's [Mining Shared Value initiative](#), which supports the global mining sector, particularly in developing countries, in navigating stricter norms on human rights and due diligence applicable to mining supply chains worldwide. She presented the [Guidance for Disclosure on Human Rights Due Diligence in Mining Sector Procurement](#), developed in cooperation with the German Agency for International Cooperation (GIZ).

### Critical Minerals and Gender Equality

Ege Tekinbas, IGF Gender Equality Advisor, introduced this Tuesday session by reminding delegates of "the opportunity, but also the responsibility, to mine more inclusively by including the voices of those left out of the sector for too long."

Moderator Camila Pereira Rego Meireles, International Labour Organization (ILO), said that women face disproportionate impacts due to climate change in regions where critical minerals for the energy transition are extracted. She noted these areas are often located on Indigenous territories or in communities where women rely on land-based resources for their livelihoods.



Ege Tekinbas, IGF Gender Equality Advisor



Panel on Critical Minerals and Gender Equality

Hasana Jummai Shaaba, Ministry of Solid Minerals Development, Nigeria, described the social, economic, and political barriers preventing women from participating in or equitably benefiting from the mining industry, including their lack of access to land, financial resources, technology, and childcare. She reviewed national policy initiatives, such as capacity building and training programmes, aimed at empowering women and amplifying their agency in the mining sector.

Javier Silva, Sociedad Química y Minera, outlined the efforts of his company, a leading lithium producer in Chile, to drive meaningful change on gender equality through a public-private partnership called Alianza Mujer Atacameña. He described how this initiative co-creates social interventions aimed at improving women's health, economic independence, and labor participation in the Atacama La Grande territory.

Katherine Maldonado, Board Member, National Network of Participatory Monitoring Committees in Peru, described how women have taken active roles in monitoring Peruvian mining operations to ensure mining is done more responsibly. She urged women in mining communities around the world to connect online to share experiences and empower each other while fighting the climate crisis and adapting to the energy transition.

Mariangela Linoci, UNCTAD, highlighted the importance of: examining the role of women in upstream segments of the supply chain; ensuring that women benefit from the ongoing transformation of value chains; conducting evidence-based research and impact assessments; and implementing gender-sensitive legal frameworks, policies, and programmes.

Responding to questions from the audience, Meireles emphasized the importance of social dialogue between workers, employers, and governments. Linoci and Shaaba called for increased awareness among policymakers and workers. Maldonado and Silvia mentioned the usefulness of digital information and transparency in helping women fight gender inequality.

### *Navigating Global Mining Standards*

Moderator Gelkha Buitrago, Global Reporting Initiative (GRI), opened this Tuesday session by explaining the work of the GRI and how it assists other standard-setting initiatives. She introduced the GRI's [Sector Standard for Mining](#), adopted in 2024.

Grégoire Bellois, IGF Secretariat, shared the [IGF's new briefing note](#) on the current global standards landscape.

Marina Ruete, Senior Law Advisor, IGF Secretariat, provided an overview of the MPF, noting the 2023 update incorporates a Guidance Notes document, international good practices across the full mining life cycle, and an affirmation of the IGF's mandate to work on six policy areas. He said these include: laws, policies, and institutions; financial benefits; socio-economic benefits; environmental management; post-mining transition; and ASM.

Michele Brulhart, Executive Director, The Copper Mark, discussed the draft Consolidated Mining Standard Initiative (CMSI). She explained that while it is built on the existing standards developed by The Copper Mark, ICMM, the World Gold Council, and the Mining Association of Canada (MAC), the CMSI seeks to reduce complexity and ease barriers to adoption and implementation by a wide range of mining companies. She said the draft CMSI is [open for public comment](#) until 16 December 2024.

Christina Berger, Extractive Industries Transparency Initiative (EITI), reviewed how the EITI is structured and operates. She emphasized the obligation for governments to disclose information along the extractive industry value chain.

At the invitation of the moderator, representatives of two further global mining standards spoke from the floor: the Initiative for Responsible Mining Assurance, which provides independent, third-party, site-level audits of industrial-scale mine sites for all mined materials; and the Global Battery Alliance, a multi-stakeholder partnership committed to bringing more

transparency to impacts across the battery value chain, and to ensuring it is sustainable, circular, and responsible by 2030.

Ensuing discussions with the audience covered:

- the challenge of enforcing standards that lack a binding legal basis, with one delegate noting that “standards without enforcement are just an empty promise”;
- the “confusing” abundance of available standards, given each “comes out of a need of a particular stakeholder group, geography, or sector”;
- the agility of voluntary standards compared to government policies, given the former can evolve much more rapidly in response to the latest best practices; and
- the role of minerals in provoking human conflicts, and the need for more traceability, transparency, and accountability in the mining sector.

### ***Protecting Nature Amid the Energy Transition***

Moderator Carlos Ortega, IGF Secretariat, opened this Tuesday session by conducting a real-time survey of attendees asking them to name the biggest challenges facing nature. The most common challenges cited by the 65 respondents included deforestation, pollution, and climate change. Forty-one of the 65 respondents had never heard about the nature positive concept to halt and reverse biodiversity loss by 2030.

Joyce Kortlandt, Netherlands Commission for Environmental Assessment, emphasized the importance of strategic environmental assessments (SEAs) for governments. She explained that SEAs complement ESAs, because while the latter focus on projects, SEAs allow governments to evaluate programmes, plans, and policies at a broader level, fostering synergies, collaboration, and coordination. Kortlandt shared lessons from two SEAs carried out in Namibia and in the Zambesi Valley of Mozambique.

Pathé Dieye, Ministry of Environment, Senegal, shared lessons learned from the application of mitigation hierarchy to Niokolo-Kola National Park, a biodiversity-rich area along the banks of the Gambia River. He described the mitigation hierarchy framework for human development projects, which aims to achieve no net loss or even net positive impacts on biodiversity through an iterative sequence of avoidance, minimization, restoration, and, only if necessary, offsetting or compensation. Dieye said that as a result of applying this EIA framework to Niokolo-Kola National Park, a positive impact was achieved, and the site was removed in 2024 from the UN Educational, Scientific and Cultural Organization’s (UNESCO) List of World Heritage Sites in Danger.

Isabel Ashman, World Economic Forum (WEF), presented the nature positive concept, which means enhancing the resilience of our planet and societies to halt and reverse nature loss. She reported that an upcoming WEF report identifies land-use change, pollution, water use, and greenhouse gas emissions as the top four drivers of biodiversity loss in the mining and metals sector. Priority actions, she added, include: transforming operations across the mining life cycle; expanding circularity and sourcing responsibly; restoring and regenerating landscapes; and transforming policy and finance systems.



**Isabel Ashman, WEF**

Answering questions from the moderator, Kortlandt reported that SEAs can take up to 300 working days and cost up to USD 600,000 to complete. Dieye pointed out that EIAs are not currently implemented in Senegal, and called for the assistance of experts, including the WEF.

### ***Regional Dialogue on Mineral Supply Chains***

Moderator Oluwatoyin Ojo, African Legal Support Facility (ALSF), opened this Wednesday session by explaining how ALSF provides legal advice and technical assistance to African countries in the structuring and negotiation of complex commercial contracts and agreements, including in the minerals sector.

Harmony Musiyarira, Namibia University of Science and Technology, discussed how Namibia, with its ports, minerals, and the development of green hydrogen, is well placed to serve in SADC efforts to develop regional mineral supply chains.

Maureen Coulas, Natural Resources Canada, discussed how Canada works with Latin America and the EU through strategic collaborations on critical minerals that emphasize advancing joint research and development, improving the resilience of critical minerals value chains, aligning policies, raising ESG standards, and fostering new investment opportunities.

Ojo brought up [a recent article co-authored by panelist Thomas Scurfeld](#), Natural Resources Governance Institute,



**Maureen Coulas, Natural Resources Canada**

which highlights the lack of public disclosure in the details of state-to-state mining partnerships. She asked Scurfeld what is known about the scope of the partnerships, whether they support regional initiatives, and what needs to be done to leverage regional potential. Scurfeld replied that not much is known about their scope, and called for greater transparency, which would allow for increased oversight and a better understanding of whether they help or hinder regional cooperation. He stressed that while state-state partnerships hold significant potential to foster regional cooperation, realizing that potential depends in part on the role mineral-rich countries will play in identifying regional cooperation opportunities.

In response to the moderator, Scurfield explained that regional cooperation and domestic interests can complement each other. For instance, regional cooperation may make value addition profitable for all partners by allowing them to reach a critical production scale. He noted that government intervention may be especially helpful for nascent projects while acknowledging the “inherent tension between cooperation and competition.”

Asked by the moderator to comment on Canada’s approach toward critical minerals management, Coulas highlighted the [Canadian Critical Mineral Strategy](#), adopted in 2022. She listed value chains as particularly promising, including clean technologies, zero-emission vehicles, wind turbines, and small modular reactors. She also stressed the CAD 70 million allocated to advance Canada’s interaction with international institutions, such as the IGF and the EITI, and the CAD 750,000 devoted to traceability.

Musiyarira lamented that the rules “on paper” are not followed by action. He emphasized some African countries’ excess power supply, which is currently not used by neighboring countries with lesser capacities.

Ensuing discussions with the audience addressed:

- the relationship between investors, the private sector, and the Canadian government, where Coulas stressed high cross-sectoral competition in attracting capital;
- the work of the ALSF on building African governments’ capacity; and
- the crucial need for energy infrastructure to support mining activities.

### ***Non-Metallic Minerals for the Energy Transition***

Jonathan Hamisi, IGF Secretariat, introduced this Wednesday session by surveying participants on the significance of NMMs, which he noted are primarily consumed locally and play a crucial role in supporting domestic economies. He identified sand and gravel as the most extracted raw materials in 2023, accounting for a volume six times greater than iron ore, the second-most extracted material. He highlighted this statistic “gives a sense of how important NMMs are for the mining industry.”

Moderator Fanny Frémont, Executive Director, Responsible Mica Initiative, noted this was the first time NMMs had been discussed at an IGF AGM, despite their importance to mining, the energy transition, and sustainable development.

Uyanga Gankhuyag, ACP-EU-UNDP Development Minerals Programme, spoke about the opportunities and advantages



**Fanny Frémont**, Executive Director, Responsible Mica Initiative

linked to NMMs, particularly in ACP countries, where the ASM procurement and processing of NMMs: can enable local job creation; address housing shortages; reduce inequality, climate emissions, and construction costs while improving housing quality; support value addition while reducing reliance on imported products; and empower women in the mining sector. She said her organization renamed these materials “development minerals” in order to define NMMs “not by what they lack, but by what they bring.”

Arsène Patoingnimi Tiendrebeogo, Director General of Quarries, Burkina Faso, presented the socioeconomic, environmental, and practical benefits of building with stabilized earth bricks in his country, where a growing population faces an inadequate supply of safe and affordable housing capable of protecting residents from extreme heat. “With the support of the ACP-EU-UNDP Development Minerals Programme,” he said that “we’ve gone through a revolution and evolution, changing the way we build in Burkina Faso, especially for the poorer population.”

Naomi Nangoku, Ministry of Energy and Mineral Development, Uganda, pointed out that ASM enterprises produce 83% of development minerals in her country. These activities contribute an estimated 1.4% to the country’s GDP and act as major catalysts for local and national development in Uganda.



**Naomi Nangoku**, Ministry of Energy and Mineral Development, Uganda



As most ASMs operate within the informal sector, Nangoku highlighted her government's efforts to bring these actors into the formal economy through outreach, capacity building, and the adoption of *ad hoc* regulations.

Louise Gallagher, Global Centre for Mineral Security, University of Queensland, emphasized that annual global sand and silicates consumption volumes are around 70,000 times greater than typical high-profile minerals. Yet, she stressed, the social and environmental risks linked to their extraction and use are often overlooked. Considering their essential role across numerous sectors, Gallagher called for developing new approaches to due diligence, enhancing collaboration among relevant actors, and ensuring the responsible sourcing of sand and silicates going forward.

### ***Transforming Mining Through Disruptive Technologies***

Moderator Isabelle Ramdoo, Deputy Director, IGF Secretariat, opened this Wednesday session by observing that disruptive technologies, such as artificial intelligence tools and robots, can increase efficiency and “have the potential to reshape how mining impacts its surrounding ecosystem,” including employment and supply chains.

Tracey Cooper presented findings from the new IGF report, [Leveraging Digital Infrastructure for Mining Community Resilience](#). She outlined the transformative potential of digital technologies, especially to remote or isolated communities. However, she noted that in developing regions such as Africa, digital penetration remains at only 40%, with significant disparities persisting within countries. She highlighted challenges to improve digital penetration, such as difficult terrain and a lack of digital literacy. She noted several examples of positive initiatives in mining communities, such as Ecuador's use of mining royalties to improve connectivity infrastructure in mining regions, and Colombia's digital infrastructure element of its national energy transition plan.

Hans van 't Spijker, Advisor, Witteveen+Bos, discussed a case study on technologies for extracting lithium from geothermal brines while generating power. He pointed out that this approach significantly reduces water consumption compared to most other lithium production methods. He reviewed various technology options for extracting lithium during water treatment.

Ashleigh Maritz, Ivanhoe Mining, discussed a hydro-powered smelter at the Kamos Copper site in the Democratic Republic of Congo (DRC), which is set to reduce production costs and lower emissions, and a Kipushi zinc-copper-germanium-silver mine in DRC, where new technologies enabled the enhancing of underground safety and ultimately increased production. Maritz also stressed the importance of stringent regulations and maintaining a social license as key elements for the industry's success.

Lisl Pullinger, Managing Director, Vivid Advisory, stressed that while technology advancement may raise concerns about employment safety, open dialogue and investing in workers' skills are critical for efficient and sustainable operations. Pullinger also emphasized how technologies can be a catalyst for removing gender barriers and allowing more women to enter the sector.



Lisl Pullinger, Managing Director, Vivid Advisory

### ***The Future of Mining and Closing***

Moderator Thomas Lassourd, IGF Secretariat, opened this final session on Wednesday, asking panelists to reflect on key lessons from the meeting.

Anna Apler, Geological Survey of Sweden, called for “equity and equality for the people of the world” and for “thinking beyond the immediate future.” She lauded the efforts of Nigeria, Peru, and Sociedad Química y Minera in working with women in the mining sector. She stressed that “mining companies should pay for mine closures—not taxpayers, the economy, or the planet.”

Katherine Gosselin, Director, Mining Association of Canada, highlighted the various roles of standards, including in helping companies anticipate stakeholders' expectations and in bridging the gap between international standardization and contextual realities.

Junior Lodge, Assistant Secretary-General, Organization of African, Caribbean and Pacific States (OACPS), highlighted the paradox faced by most OACPS members: mineral wealth but acute poverty. He concluded by highlighting the need to provide ASM workers with a proper governance framework with health, environmental, and labor standards.

Luz María de la Mora, UNCTAD, said trade policy can help open markets for exports and allow developing countries to import the equipment and technology they require to “climb up the value chain.” Noting the increase in commodity-dependent countries today compared to fifteen years ago, she stressed the need for a



Luz María de la Mora, UNCTAD

mix of policies to ensure developing countries retain as much value as possible from their own mineral resources.

Lassourd asked audience members to reflect on the most surprising things learned over the last three days and concrete steps they will take after the meeting. In response, panelists highlighted:

- the need to think about mining along the full value chain, from the mining site to mined materials and products and their circularity;
- the need to keep collaborating;
- the hopeful pathways shared in case studies and presentations toward a more just and sustainable mining industry;
- the readiness of the private sector to embrace sustainability and strengthen regulation;
- the size of the NMM sector and its potential to, among other things, reduce carbon emissions and boost the construction of “sustainable and beautiful houses”; and
- the idea that environmental protection is not only about minimizing damages, but also about leaving places in better condition than they were found.

After reviewing highlights from the past three days of sessions and side events, de la Mora closed the meeting at 5:37 pm.

### Upcoming Meetings

**Global Commodities Forum:** Organized by UNCTAD, this multi-stakeholder conference will discuss pragmatic solutions to challenges faced by stakeholders in agriculture, mineral, and energy-related commodity value chains, with a focus on developing countries and the context of the climate emergency. **dates:** 9-10 December 2024 **location:** Geneva, Switzerland **www:** [unctad.org/meeting/global-commodities-forum-2024](https://unctad.org/meeting/global-commodities-forum-2024)

**Future Minerals Forum:** This Forum will bring together senior government and industry representatives dedicated to creating resilient and responsible mineral value chains in the mineral-rich regions of Africa, and Western and Central Asia. The event will include a ministerial roundtable, strategic conference, and international exhibition and marketplace. **dates:** 14-16 January 2025 **location:** Riyadh, Saudi Arabia **www:** [www.futuremineralsforum.com/](https://futuremineralsforum.com/)

**Mining Indaba 2025:** The Investing in African Mining Indaba (Mining Indaba) is dedicated to the successful capitalization and development of mining interests in Africa. The 2025 theme is “Future-Proofing African Mining, Today!” The theme will also be anchored on seven key content pillars: industrializing Africa; future-proofing African communities; delivering effective net-zero and just energy transition strategies; maximizing Africa’s critical minerals endowment; giving a voice to future generations; adopting game-changing technologies; and prioritizing health and safety. **dates:** 3-5 February 2025 **location:** Cape Town, South Africa **www:** [miningindaba.com/home](https://miningindaba.com/home)

**18th Organisation for Economic Co-operation and Development (OECD) Forum on Responsible Mineral Supply Chains:** The Forum meets annually to review and discuss the implementation of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. **dates:** May 2025 (TBD) **location:** Paris, France **www:** [www.oecd-events.org/responsible-mineral-supply-chain/en](https://www.oecd-events.org/responsible-mineral-supply-chain/en)

**UN High-Level Political Forum on Sustainable Development (HLPF):** The 2025 session of the HLPF, under the auspices of the UN Economic and Social Council (ECOSOC), will take place on the theme “Advancing sustainable, inclusive, science- and evidence-based solutions for the 2030 Agenda for Sustainable Development and its Sustainable Development Goals for leaving no one behind.” It will include an in-depth review of SDGs 3 (good health and well-being), 5 (gender equality), 8 (decent work and economic growth), 14 (life below water), and 17 (partnerships for the Goals). **dates:** 14-23 July 2025 **location:** New York City, US **www:** [hlpf.un.org/2025](https://hlpf.un.org/2025)

**Sixth Conference of the Parties of the Minamata Convention:** COP-6 will discuss, among other things: possible decisions on mercury-added cosmetics and vinyl chloride monomer; draft guidance on identifying, managing, and reducing mercury trade from primary mercury mining; updated guidance on stocks; a study of the global supply, production, trade, and use of mercury compounds; and the status of the Convention’s first effectiveness evaluation. **dates:** 3-7 November 2025 **location:** Geneva, Switzerland **www:** [minamataconvention.org/en/meetings/cop6](https://minamataconvention.org/en/meetings/cop6)

**IGF AGM 21:** The theme for the 21st AGM has not yet been set. **dates:** November 2025 (TBA) **location:** Geneva, Switzerland **www:** [www.igfmining.org/annual-general-meeting/](https://www.igfmining.org/annual-general-meeting/)  
For additional upcoming events, see [sdg.iisd.org](https://sdg.iisd.org)

### Glossary

ACP	African, Caribbean and Pacific States
AGM	Annual General Meeting
ALSF	African Legal Support Facility
ASM	Artisanal and small-scale mining
CMSI	Consolidated Mining Standards Initiative
EITI	Extractive Industries Transparency Initiative
ESIA	Environmental and social impact assessment
ESG	Environmental, social and governance
FPIC	Free, prior and informed consent
ICMM	International Council on Mining and Metals
GRI	Global Reporting Initiative
IEA	International Energy Agency
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
MPF	Mining Policy Framework
NMMs	Non-metallic minerals
OACPS	Organisation of African, Caribbean and Pacific States
SADC	Southern Africa Development Community
SEA	Strategic Environmental Assessment
UNCTAD	UN Trade and Development
UNDP	UN Development Programme
UNEP	UN Environment Programme