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14th Annual General Meeting (AGM) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF)

The 14th Annual General Meeting (AGM) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) took place in Geneva, Switzerland, from 16-18 October 2018, on the theme of “Modern Mining Law and Policy: Accountable, Equitable and Innovative Approaches.”

Approximately 400 participants from more than 80 countries registered for the 14th AGM, organized by the IGF Secretariat and hosted by the UN Conference on Trade and Development (UNCTAD) at the Palais des Nations, Geneva.

Prior to the AGM, government delegates took part in an intergovernmental workshop on 15 October. Following the AGM, a technical workshop on Base Erosion and Profit Shifting (BEPS) took place on 19 October.

At the AGM, participants discussed issues of concern and shared country experiences in the revision of mining codes and laws, public access to geological information, gender impacts of mining and policy responses to support progress toward the Sustainable Development Goals (SDGs), and mine inspection systems. They considered the possibilities for “climate-smart” and “forest-smart” approaches to mining.

Many speakers highlighted the impacts of technological change, the increase in global demand for lithium in the manufacture of batteries for smartphones and electric vehicles, and related opportunities for governments and industry leaders to respond in creating responsible supply chains. Delegates discussed the relevance of internationally-agreed voluntary instruments for contract negotiations, best practices in mine closure, benefit sharing in technological innovation, and promoting diversification through local content strategies. Taking note of a trend whereby companies are seeking compensation from governments for cancellation of mining permits, delegates discussed how environmental and social impact assessments (ESIA) contribute to sustainable mining, and the role of community engagement and tax reforms. UNCTAD presented a session showcasing new UN tools that support sustainable mining policies.

This summary report provides a brief history of the IGF and a report of the three-day AGM from 16-18 October.

A Brief History of the IGF

The IGF serves as a global venue for dialogue among 68 member country governments, as well as mining companies and industry associations. The IGF was created following the 2002 World Summit on Sustainable Development (WSSD). The Governments of Canada and South Africa were instrumental in the establishment of the IGF, which was announced in February

2005 as a voluntary initiative for national governments interested in promoting good governance in the management of mineral resources.

The IGF is focused on improving resource governance and decision making by governments engaging in the sector, and its work is largely framed by its flagship policy guidance and assessment tool, the Mining Policy Framework (MPF). The MPF identifies best practices in six pillars of mining policy and law: the legal and policy environment; financial benefit optimization; socioeconomic benefit optimization; environmental management; mine closure and post-mining transitions; and artisanal and small-scale mining (ASM). The Framework was presented at the nineteenth session of the CSD in 2011.

In 2012, the UN Conference on Sustainable Development (UNCSD, or Rio+20) convened to assess global sustainable development policy and adopted an outcome titled, “The Future We Want.” Besides calling on the international community to negotiate a set of SDGs, the Rio+20 Outcome urged governments and businesses to promote the continuous improvement of accountability and transparency, as well as the effectiveness of relevant existing mechanisms to prevent the illicit financial flows from mining activities.

In October 2015, the International Institute for Sustainable Development (IISD) replaced the Government of Canada’s Department of Foreign Affairs, Trade and Development as the Forum’s Secretariat.

Previous AGMs of the IGF have discussed topics relating to the MPF, including: fiscal and legislative frameworks as they relate to investment decisions, revenue sharing, mine closure and abandoned mines; social benefits and engagement, including community engagement, local revenue management, operational security and human rights, education and the role of women in the mining sector; and post-mining transition and environmental management.

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Report of the 14th Annual General Meeting

Session 1: Opening Plenary

Opening the 14th Annual General Meeting (AGM) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) on Tuesday morning, IGF Chair Alexander Medina (Dominican Republic) commended the role of the IGF in encouraging governments to share their experiences in the mining sector and consider how best to share the benefits of mineral resources. He emphasized the meeting as a unique opportunity for collaboration among governments, mining companies and civil society, to ensure the establishment of mining legal frameworks that are “accountable, equitable and innovative.”

Isabelle Durant, UN Conference on Trade and Development (UNCTAD), noted growth in demand for lithium, a key component in smartphone and electric vehicle batteries. Lithium production, she said, poses questions of governance, environment, corruption, regulation, human rights and child labor. She called for a more coherent governance framework to relieve pressure on supply chains, emphasizing that action by all stakeholder groups is needed, and highlighted UNCTAD’s readiness to support this.

Scott Vaughan, President, International Institute for Sustainable Development (IISD), noted that more than 70% of the governments around the globe have adopted or are in the process of adopting mining policies. He highlighted that the IGF is the only international platform to support government efforts in this area, and called for multi-stakeholder partnerships to achieve progress on implementation of the Sustainable Development Goals (SDGs) in relation to mining.

Greg Radford, Director, IGF Secretariat, expressed appreciation for the support of the Executive Committee, donors and partners. He reported that 14 countries have joined IGF over the past two years, and five new members have undertaken Mining Policy Framework (MPF) assessments in their countries, bringing the current total of completed MPF assessments to 11.

Session 2: Modern Mining Law and Policy - Global Trends

Moderator Kojo Busia, UN Economic Commission for Africa (UNECA), emphasized that technology will affect not only economic areas such as efficiency, productivity and competitiveness, but also influence safety and sustainability, and will increasingly shape future mining policies. He highlighted the need to redefine partnerships between governments and industry, and create a new social contract with communities.

Hilary Morgan, Director, Natural Resources Canada, outlined the proposed Impact Assessment Act currently under consideration by the Canadian Senate, noting that the Act relies on collaboration between the federal government and provinces and territories, adopts a broad definition of sustainable development beyond environmental impact, and introduces a new assessment process for proposed mining activities. She introduced two initiatives with potential to promote sustainable mining: the Impact Canada Initiative, and Responsible Business Conduct.

Tom Butler, CEO, International Council on Mining and Metals (ICMM), noted the social contract has evolved from mines mainly focusing on paying taxes and dividends towards more complex requirements in the current era of the SDGs. He explained ICMM’s role in developing equitable societal norms through improving mining regulation.



Hilary Morgan, Natural Resources Canada, and Kojo Busia, UNECA

Mutuso Dhlwayo, Executive Director, Zimbabwe Environmental Law Association, noted that some people believe mining can be done responsibly, while others think it should not take place at all. Although identifying with the first group, he said that poorly-drafted laws can lead to mismanagement of minerals and natural resources.

Panelists agreed that all policies should be based on the principles of transparency, participation, shared benefits, accountability, and sustainability, and that multi-stakeholder consultation and collaboration is important in developing stronger legislation. Butler suggested countries and companies help local mining communities prepare for technological changes by providing training for new jobs and developing supply chains in parallel to mining activities. Morgan highlighted the importance of education and training, especially for indigenous peoples. Dhlwayo stressed that the mining industry should be aware of the negative impacts of technological change, and should create job opportunities for local communities.

A participant questioned whether introducing top-down policies would accelerate or constrain transformation in the mining sector, and a Latin American delegate observed that some issues such as participation by indigenous peoples might require constitutional change. An African participant urged the IGF to empower countries rather than establish “ineffective policies,” and another lamented the increase in conditionalities imposed by foreign investors. Butler affirmed the need for companies to engage with communities to find solutions, noting that performance on some indicators, such as childhood mortality, had improved most in African countries with large mining sectors.

Session 3: Revision of Mining Codes and Laws: Case Studies

Moderator Clémence Naré, IGF Secretariat, remarked that the political and legal environment had experienced significant reforms in recent years, with as many as 73% of IGF members declaring they have undertaken regulatory framework reforms in the past year. Emphasizing the need for compliance with these policies and mining codes, she invited three countries to share their experiences of legislative reforms.

Dione Macedo, Ministry of Mines and Energy, Brazil, discussed Brazil’s mining code revision and revitalization program, noting that the industry produces 70 different minerals from approximately 8,400 mines, accounting for 4.2% of gross domestic product (GDP). Goals of the revision and initiative, she stated, include reduced dependence on mineral commodities

markets, increased foreign investment, restoration of credibility and regulatory stability, and recovery of growth in the industry. Macedo highlighted actions to achieve these, including, inter alia, the creation of a national mining agency, changes to the calculation and distribution of royalties, and incorporation of social and environmental protections.

Sakamornsnguan Kridtaya, Ministry of Industry, Thailand, reviewed mining laws in the country, focusing on a new 16-chapter Minerals Act adopted in 2017, which builds on earlier policies. The law covers, inter alia, the creation of mining zones, new criteria for mining operations, participation of the community in decision making, revenue collection and sharing, and land use compensation. Objectives for the revision, she outlined, include modernization of the industry, more systemic resource management, enhancement of operation quality and participation of stakeholders, and reduction of political influence and corruption. Acknowledging challenges, Kridtaya underscored issues of power imbalances in contract negotiations, impractical requirements, and excessively strict regulations or penalties.

Sylvain Some, Ministry of Energy, Mines and Quarries, Burkina Faso, provided an overview of his country's mining code reforms, introduced in 2015. He highlighted positive changes, such as withdrawal of permits from mines that are found to use child labor or engage in fraudulent transactions. Other improvements, he noted, have been limiting the life span of mining permits, standardizing rates and taxes, reducing bureaucratic bottlenecks, and establishing a rehabilitation fund for mine closure.

Session 4: Generating and Accessing Geological Information: Innovative and Transparent Approaches

Rokhaya Samba, Ministry of Mines and Geology, Senegal, displayed geological maps of Senegal showing the potential for mining phosphates, heavy metals, gold and other minerals, as well as a hydrogeological map indicating water levels in vulnerable aquifers. She noted Senegal's establishment of a Directorate of Mineral Prospecting and Promotion and a support fund for the mining sector, explaining that 20% of mining income goes to the support fund.

Natalia Amezcua Torres, Mexican Geological Survey, highlighted the value of generating geological information that is publicly available, stating that benefits include sensitizing society to issues around mining, contributing to decision-making processes, and enabling risk assessment. She commented that geological information is valuable not only for the mining sector, but also for suppliers seeking business opportunities in the mining sector, and for investors who could avoid starting projects in areas with vulnerable ecosystems.

François Prognon, French Geological Survey, introduced the Minéralinfo web portal, a public domain funded by the French government, and described its project in Cameroon, which created an information system for managing geological data.

Stacey Plummer, Ministry of Transport and Mining, Jamaica, presented her country's creation of a mineral information web map to disseminate geological information and ensure access to information.

In the ensuing discussion, panelists and participants stressed the importance of data dissemination in ensuring fair benefit sharing among companies, governments and local communities. They raised questions about how data is updated online, funding sources, and type of software used for mapping and data management. An African delegate proposed activities to build developing countries' capacities to collect and maintain

geological data, including sponsoring students and professionals from developing countries to study geology in developed countries.

Session 5: Imagining the Future of Mining: Mapping and Considering Gender Impacts, Gaps and Policy Responses to Support Progress on the SDGs

Moderator Uyanga Gankhuyag, UN Development Programme (UNDP), said the main objective of sustainable development policy responses, is to incorporate human rights into mining practices, based on the Rio Declaration. She emphasized that human rights and environmental impacts are closely related.

Christopher Sheldon, World Bank, presented the World Bank Group gender strategy for 2016-2023 and relevant activities in the mining sector. Noting the ambitious target set by the World Bank to address various gender gaps, he shared successful capacity building projects in Ghana and the Democratic Republic of Congo, and discussed the potential impacts of disruptive technologies on job opportunities for both men and women, suggesting that stakeholders identify strategies for job transition.

Rebecca Iwerks, Natural Resource Governance Institute, described the Institute's research into how men and women are impacted differently during the life cycle of a mine, noting that women tend to shift towards the service sector or leave the work force once mining replaces agriculture. She reported that women tend to be negatively affected during and after the extraction phase.

Teresa Macayo Marin, Ministry of Mining, Peru, presented several initiatives in her country to improve gender equality in the mining sector, including a six-month training programme for female leaders from both the public and private sectors and a project to increase the visibility of female miners and reduce gender inequality in ASM. She noted that these initiatives have empowered female leaders, reduced salary gaps, and improved healthcare for women in ASM and their children.

The session concluded with interactive group discussions on how governments can strengthen the gender component of their policy assessments to improve development outcomes from the mining sector. Participants shared their views on the most challenging gaps to address, the best starting point for a policy response, and which policies would most affect the future of mining. Most groups concluded that education and the role of women in decision making are 'pivotal' priorities.



Rebecca Iwerks, Natural Resources Governance Institute, and Christopher Sheldon, World Bank

Session 6: Supervising Mining Practice: Reporting on Developing Mine Inspection Systems

Gudrun Franken, Federal Institute for Geosciences and Natural Resources (BGR), Germany, moderated the session.

Wolfgang Schirmacher, team leader, Lao-German technical cooperation project on “Support for Sustainable Development,” presented efforts to increase the institutional and technical capacity of mining authorities in the Lao People’s Democratic Republic (Lao PDR). He highlighted the greatest challenge as being “the last mile” after inspections take place, to ensure there is follow-up and enforcement. He suggested that future work concentrate not only on technical training but also on organizational procedures and implementation, and proposed that a mining association could be set up as a “natural partner” for mining authorities.

Obete Matine, Inspector General, Ministry of Mineral Resources and Energy, Mozambique, presented on activities to reduce river pollution caused by gold mining in Manica province, western Mozambique, and human resource training to promote mine safety and reduce mine accidents, which had resulted in no mining accidents occurring in 2018. He described government actions to bring stakeholders together, including local authorities, to explain how mining activities should be conducted. Other measures included temporary mine closure to enable mining companies to comply with requirements, and encouraging local authorities to compete amongst themselves for having the cleanest river.

Priscila Armijos Silva, Ministry of Energy and Non-Renewable Natural Resources, Ecuador, discussed non-compliance issues. She described the work of the Special Commission to Control Illegal Mining, set up by Presidential decree in 2011 to take action on illegal mining and ultimately ensure minerals’ traceability. She said that the Commission, which includes members from regulatory agencies, is unable to conduct its own intelligence gathering, and that problems persist due to legislative gaps, social conflicts, and the high profit margins and corruption that follow illegal mining.

In the ensuing discussion, participants engaged the panelists on topics, including, inter alia: the role and budget of mining associations; whether chemical processes or other practices were used to restore reclaimed land; health and safety concerns; and the extent to which damages or reparations are paid by illegal operators. A Latin American participant highlighted lack of understanding and technical capacity in his country as a key

issue, particularly because it results in accidents when operators seek to move from small- to medium-scale operations. He emphasized illegal mining as a problem, in part due to money being laundered through illegal mining activities, which presents difficulties for enforcement as it extends to other criminal activities that go well beyond the reach of the mining authorities.

Session 7: Climate-Smart Mining

Sheldon, World Bank, moderated this plenary session on Tuesday. Daniele La Porta, World Bank, presented the Bank’s 2017 report that mapped the potential mineral demand of low-carbon technologies. La Porta outlined challenges for the mining sector, including: reducing its carbon and materials footprint; creating market opportunities for renewable energy; integrating landscape management into planning and infrastructure; and recycling.

Joseph Mankelov, British Geological Survey, suggested consulting historic geological data to identify endowments of the critical metals needed in electric vehicles, as well as aluminum and copper, and improving extraction methods.

Matthew Bateson, Rio Tinto, affirmed the value of partnerships along the mining value chain, and highlighted his company’s involvement in the Aluminium Stewardship Initiative. He outlined the challenges for large operations to transition to low-carbon approaches, including their heavy reliance on diesel transport and coal-fired infrastructure, and proposed a 30-year transition period as being realistic.

Guy Ethier, Umicore, introduced his company’s investment in research on electric vehicle batteries and recycling opportunities, noting that fragmentation in the supply chain makes it difficult to tackle issues regarding product life cycles and to address related social issues.

Evelyn Daphne Blackie, Deputy Minister of Mines and Mineral Resources, Sierra Leone, emphasized the importance of engaging communities, local leaders and national politicians in decision making for transitions to climate-smart mining practices.

Participants discussed, inter alia: communicating with the public, infrastructure development, creating an enabling environment for investment, competing land-use priorities, and the implications of a circular economy for the mining sector.

Session 8: Forest-Smart Mining

Moderator Estelle Levin-Nally, Founding Director, Levin Sources, introduced a Program on Forests video on the links between mining and forest management.



L-R: **Alexander Medina**, Chair, IGF; **Guy Ethier**, Umicore; **Joseph Mankelov**, British Geological Survey; moderator **Christopher Sheldon**, World Bank; **Evelyn Daphne Blackie**, Deputy Minister of Mines and Mineral Resources, Sierra Leone; **Matthew Bateson**, Rio Tinto; and **Daniele La Porta**, World Bank

Pippa Howard, Fauna & Flora International, presented research identifying 1,500 large-scale mining (LSM) operations in forests and another 1,800 forthcoming projects in development, which together would affect one-third of the world's forests. She noted that, whereas LSM is a regulated, mechanized industry, ASM is diffuse and often unlicensed. She recommended that business and government cooperate to mitigate and manage cumulative and direct impacts, consider other uses of the landscape and work with stakeholders.

Nick Cotts, Newmont Mining Corporation, stated that impacts at the fringes of the 50-kilometer mining zone were difficult to control. He recommended that large mining companies serve as role models for medium-sized mines by raising their own environmental standards.

Macayo Marin described Peru's registry of informal mines, which she said helps understand and manage impacts on forested areas. She highlighted her government's establishment of a protected forest category of nearly 400,000 hectares where mining activities are forbidden, and provision of tax incentives for mining companies adopting forest-smart approaches.

On reforestation and commitments to no net loss of forests, panelists underscored the importance of cooperation across various ministries to harmonize priorities and ensure proper oversight, as well as to engage with the private sector and reduce "false starts" on initiatives such as biodiversity offsets.

Participants described mining companies' initiatives for reforestation and biodiversity protection, and reflected that illegal logging plays a far greater role in deforestation than mining. Cotts underscored that illegal logging is often indirectly driven by mining activities, such as the creation of access roads, and stressed the role of government in law enforcement.

Session 9: The Relevance of Internationally Agreed Voluntary Instruments for Contract Negotiations

Moderator Karl Sauvart, Advisory Committee, CONNEX initiative on "Strengthening Assistance for Complex Contract Negotiations," remarked that investors are increasingly turning to investor-state dispute settlement processes, which, he noted, provide protection to investors under trade agreements, but do not necessarily spell out companies' obligations.

Nneoma Nwogu, World Bank, highlighted that voluntary instruments set norms that inform lawmaking, and can serve to fill a gap while laws 'catch up' to existing norms.

Louis Maréchal, Organisation for Economic Co-operation and Development (OECD), affirmed that countries are turning voluntary guidelines into mandatory requirements, citing EU regulation of gold importers as an example. He highlighted the African Mining Vision, the UN Guiding Principles for Business and Human Rights, and the OECD Due Diligence Guidance for Responsible Supply Chains as the relevant instruments.

Herbert MacLeod, CONNEX Advisory Committee, emphasized the importance of having champions in countries, who will promote understanding of UN and OECD principles.

In the ensuing discussion, a participant mentioned an international arbitration case in which the tribunal had given legal weight to a human rights principle. Panelists underlined the need to incorporate voluntary instruments into national policies, suggesting that governments improve their capacity to understand these instruments and the spirit behind them. They called for



Herbert McLeod, CONNEX Advisory Committee

closing the gap between large, public-listed companies that have the capacity to comply with voluntary principles, and small companies that do not have such capacity. An African delegate suggested African governments should incorporate the existing voluntary instruments in their long-term strategies in order to avoid "resource curse" outcomes in which countries' natural endowment of minerals do not benefit society at large.

Session 10: Mine Closure Best Practices: Tools for Companies and Governments

Moderator Morgan outlined the Canadian government's Green Mining Innovation programme on water and waste management and the National Orphaned/Abandoned Mines Initiative as part of the broader Canadian Minerals and Metals Plan being developed.

Andrew Gunua, Mineral Resource Authority, Papua New Guinea (PNG), lamented that the country's current regulations contain only limited provisions for mine closure. He described PNG's pilot implementation of the Mine Closure Checklist for Governments, developed by the Asia-Pacific Economic Cooperation Mining Task Force under a programme coordinated by Natural Resources Canada, and explained that PNG's mine closure and rehabilitation guidelines are scheduled to be completed next year.

Nicky Black, ICMM, stated that governments are imposing increasingly stringent regulations for mine closure, such as bans on open-pit mining and requirements to backfill open pits. She noted that post-mining land use is an issue affecting local communities, and that stakeholders are often unsure how to collaborate for successful mine closure. She highlighted the ICMM's development of a business case to highlight the importance of progressive and integrated mine closure.

Participants raised issues of: whether companies that abandon mines can be pursued for reparation; the need to plan for mine closure; reviewing and updating mine closure plans; and conducting a strategic environmental assessment of catchment areas, including the need for water treatment. They noted that closure planning in some countries would require mining companies to provide a security bond to the regulator to ensure rehabilitation of the mine site. An African participant expressed concern that there has not been a case study of successful rehabilitation. A mining company responded that this is a fairly new endeavor, and stressed the need for clarity of regulation around closure criteria to enable better planning.

Session 11: Leveraging Innovation for a Sustainable Mining Sector

Moderator Crawford observed that access to new technologies is accelerating, while costs are declining. He invited panelists to share the ways in which their countries and organizations will ensure that mining continues to contribute to sustainable development.

Marcela Angulo González, Chilean Economic Development Agency, presented the Chilean 2035 technology roadmap to address productivity challenges through a robust, collaborative public-private innovation ecosystem linking industry, suppliers, research and development entities and the public sector. She highlighted: strategies and technologies to recover high-value minerals from tailings; an interoperable enabling platform to “smart-connected” mining operations; solar photovoltaic power technologies for high radiation; and the solar mining technology institute.

Scott Yarrow, Glencore International AG, remarked that technological innovation is needed to reach new deposits of minerals in remote areas and at deep levels. He presented two cases where the company had used new technology to reduce environmental impacts and improve safety of mining activities: the introduction of battery electric vehicles and remote-controlled “autonomous” operations in its Sudbury operations in Ontario; and the establishment of wind turbines in the Raglan mine in the Arctic.

Vanessa Ushie, African Development Bank (AfDB), presented innovations developed by the African National Resources Center, highlighting AfDB’s research on the planning, conservation, and economics of natural resources. She mentioned 200,000 mine workers will lose their jobs in the Southern African Development Community region, and called for policy imperatives for the African mining sector to ensure an increase in jobs in manufacturing and services.

In the ensuing discussion, questions from the audience addressed the management of confidential data, gender gaps, job losses, and diversification of the mining industry. Panelists then discussed their organizations’ efforts on gender equality, job creation and workplace transition.

Session 12: Promoting Responsible Supply Chains

Moderator Assheton Carter, The Dragonfly Initiative, opened the session, noting that it would discuss the roles of governments, companies at the downstream end of the value chain, operating mines, and custodians of responsible sourcing initiatives.

Ben Chalmers, Mining Association of Canada, described the Towards Sustainable Mining programme, which addresses environmental footprints, energy efficiency, and communities and people in the Canadian context. He offered a definition for responsible sourcing and highlighted a new standard, ResponsibleSteel™. He stressed that voluntary standards must complement good regulatory systems.

Louis Maréchal, OECD, reported that 48 countries have committed to promoting use of the OECD Due Diligence Guidance for Responsible Supply Chains, and underscored that the Guidance serves as a tool to help companies maintain relations within fragile states and remain engaged in these areas.

Vivaswath Kumar, Tesla, provided an overview of Tesla’s innovations in electric vehicles and energy storage products, including the “Gigafactory” that aims to provide 50 GWh of energy storage by 2020, all of which are driving demand for



Moderator **Assheton Carter**, CEO, The Dragonfly Initiative, and **Vivaswath Kumar**, Tesla

lithium. He noted the need for lithium has grown by 100% since Tesla started developing electric vehicle batteries, requiring a higher level of governance and sustainable practices.

During the ensuing discussion, panelists and participants highlighted: the costs of compliance and market rewards from compliance; costs and effort involved in implementing independent audits, and the cost of not having standards in place; ways of implementing the standards and defining good practices; having a wider conversation and developing relationships with the government; the role of community-of-interest panels in setting standards; obligations of companies in the supply chain to work with governments to reduce irresponsible practices; and the challenges of tracing practices and metals to the source companies.

Participants also discussed how standards can support ASM to play a positive role in countries’ development, and a representative from a European association described its efforts to promote socially inclusive and better environmental practices.

Session 13: Promoting Diversification through Local Content Strategies

Black, ICM, moderated the session. Johannes Danz, BGR, argued that opportunities for local suppliers should focus on products that are in constant demand throughout the life of the mine, since stability of demand enables local suppliers or manufacturers to improve the quality of their product or service and move into the mining value chain.

Busia, UNECA, highlighted the unrealized potential for developing local content in many countries, and recommended that countries establish comprehensive national supply and development programmes, and overcome institutional rigidities that prevent supply chains from being built. He announced that Ghana is about to enact a law on local content.

Macedo cautioned that suppliers to the mining industry should expand their services to other sectors, since commodity prices fluctuate greatly and may affect opportunities within the industry.

Monica Ospina, O Trade, shared her experience of supporting mining communities in many developing countries, calling for consideration of local communities’ needs. She suggested local content policies should go beyond supply chain considerations to promote local communities’ access to education, health, and other services. She called on governments to play a facilitation role, without too much intervention.

In the ensuing discussion, a delegate from the Arab region shared successful experiences promoting local hiring in his country’s mining sector. Other developing country delegates



L-R: **Rob Verheem**, National Commission for Environmental Assessment (NCEA), the Netherlands; moderator **Suzy Nikiema**, International Law Advisor, IGF; **Rafael Benke**, Proactiva Results; and **Cathryn MacCallum**, SRK Consulting

emphasized the need for incorporating local content into long-term development strategies, and for collaboration between governments and industry. A mining company representative indicated that local content strategies have become an obligation and have rigorous implementation processes, which has enabled some local suppliers become competitive at the national level. Panelists noted the complementarity between government policy and companies' initiatives to promote diversification, and called for more engagement with local communities.

Session 14: IGF General Council

Members of the Council met in a closed session on Thursday morning.

Session 15: Environmental and Social Impact Assessments (ESIA)

In the opening plenary session on Thursday, moderator Nikiema, IGF Secretariat, reminded participants to provide their inputs into the draft ESIA guidance document, a framework for mining responsibly and sustainably. She highlighted five gaps identified through a review of case studies including: lack of clarity on the role of ESIA in contracting processes; timing of permit withdrawal based on ESIA; poor sequencing of ESIA processes; shortcomings in the procedure of preparing ESIA, such as automatic acceptance of reports; and lack of appropriate mechanisms for monitoring and evaluation.

Cathryn MacCallum, SRK Consulting, presented a fictitious case study on mine development, outlining problems that can arise in the process. She lamented that no ESIA—for which terms of reference are set by governments—yet requires full community profiling that would help mining companies better understand the local development context.

Rob Verheem, National Commission for Environmental Assessment, the Netherlands, commended the ESIA guidance document for suggesting that countries strengthen their legal

frameworks, which he believed would improve the quality of assessments. He proposed that the Secretariat present guidance at the next AGM on best practices for ESIA. He highlighted the need for conducting strategic environmental assessments (SEA) before mining projects are approved.

Rafael Benke, Proactiva, urged mine operators to consider ESIA as a mechanism for healthy strategic development of an enterprise, rather than an obstacle. Describing current approaches as “mine-centered,” he called for addressing the social, environmental and economic aspects in an integrated approach through broad regional development.

Responding to questions from the moderator, MacCallum highlighted opportunities to create a binding social framework compact between a community, a mine and a government by drawing on best practices relating to free, prior and informed consent (FPIC). Verheem stressed that once permits are granted a company needs to trust it can operate, and underscored that, should an ESIA or SEA find major impacts, risks or constraints, there are mechanisms for compensation. Noting that there are many elements to consider, he emphasized that it is better to know the facts rather than to insist on what is allowed by the permit. Asked whether economics should inform “EESIAs,” Benke noted that investors should consider a project's long-term viability and sustainability, but that this question is not often discussed with planning ministries.

In the ensuing discussion, an Arab delegate underscored that community engagement should be key for all ESIA, as such engagement can help stakeholders understand the fundamental issues. Audience members raised questions on how to help build capacity to check ESIA and how to leverage funding to escalate development across regions. Panelists underscored the importance of building high-level policymakers' awareness of project implications, and improving coordination within government at different levels.

Session 16: Engaging Communities in the Mine Life Cycle

Moderator Wendy Tyrrell, Development Partners Institute, invited panelists to share their experiences of partnering with communities in several countries.

Joyce Nyamukunda, Zimbabwe Environmental Law Association, outlined issues that drive the conversations about community engagement in her country, including cost-versus-benefit discussions, the effects of blasting, loss of human lives and livestock, investigative research, new investments and contract monitoring. On what governments can do to facilitate effective community engagement, she highlighted: institutional and legal reforms that promote sustainable and responsible mine investments; implementation, enforcement and monitoring compliance by mining companies; and transparency, accountability and community participation across the mining value chain.

Speaking on behalf of her client Aurania, Ospina discussed early engagement for exploration in Ecuador, emphasizing that the minerals sector cannot be separated from the social component. Underscoring the value of human and social capital, Ospina outlined Aurania's social portfolio and highlighted collaboration and participation as key assets for community engagement.

André Xavier, Canadian International Resources and Development Institute, reported that social conflicts around mines are rising, most of them around environmental issues. He elaborated on participatory monitoring processes that serve as mechanisms for dialogue between mining companies and host communities. Xavier pointed to socio-environmental conflicts, community concerns about environmental impacts of mining, and changes in legislation and regulatory frameworks as reasons for companies to engage in participatory monitoring processes.

Agapito Alexander Rodríguez Escobar, Honduran Institute of Geology and Mines, outlined how the government had sought to bring ASM under control following a 2014 accident, working to transfer titles to communities that organized themselves, with government support and training, to work in a safe manner. Expressing satisfaction with the results to date, he noted that the model may be replicated throughout the country.

Questions from the audience covered challenges faced when building relationships between communities and governments. An African participant commented that governments have, to some degree, failed in being coherent, calling for legal impact studies. Tyrrell emphasized that the way for governments to be effective is through deep engagement that acknowledges

and respects people. Ospina highlighted the complexity of engagement and resource constraints, which restricts officials during the assessment and decision-making process.

Session 17: New Technology, New Deal – What Lies Ahead?

Tracey Cooper, Executive Director, Mining Dialogues 360°, moderated the session.

Janne Kaiser-Tedesco, German Corporation for International Cooperation (GIZ), acknowledged the prospect of widespread job losses due to adoption of new mining technology, while also noting that digital innovations could help improve the governance of extractives. She highlighted the need to help governments evaluate the different policy options for managing the transition.

Howard Mann, IGF Secretariat, outlined insights from the 2016 IISD study, "Mining a Mirage?", noting that adoption of new technology had resulted in 50-70% reductions in employment. He expressed concern that 70-80% of the gains from technology adoption would accrue to the mining companies, whereas the costs would accrue to governments and local communities. He explained that manufacturing and maintenance of high-tech equipment presents other employment opportunities, and recommended that government and industry consider how developing countries can benefit from such opportunities.

Benjamin Aryee, Ministry of Lands and Natural Resources, Ghana, stated that mining policy should be coordinated within the broader framework of industrial policy and development goals. He described impacts in Ghana as former mine workers moved into illegal, small-scale mining. He noted that the development of alternative livelihoods, including in oil palm, has provided returns equivalent to those from unskilled mine labor. He outlined options for negotiating with mines to undertake capacity building with their contractors and Ghanaian partners.

Richard Morgan, Anglo American, said that mining companies must "repurpose" themselves in the context of SDGs. Noting that 70% of Anglo American's mines are in water-stressed areas, he discussed how water-saving technologies can contribute to sustainable development of relevant regions. He recommended that all companies work closely with local communities and governments, and that they inform them about the potential impacts of new technologies.

Participants asked questions on, inter alia: mining taxes linked to the percentage of local content in company operations; arrangements to share benefits among different stakeholders; and the impacts of technological change on the ASM sector. In response, panelists highlighted that technological change can have both positive and negative impacts, so stakeholders need to work collectively and transparently to consider potential solutions. A participant commented that new technologies are not necessarily associated with job losses, and can lead to new development paths for people in mining regions. Another participant suggested the mining sector should draw lessons from the oil and gas sector in order to better prepare for the transitions that will be driven by new technologies.

Session 18: New Un Tools Supporting Sustainable Mining Policies

Pamela Coke-Hamilton, UNCTAD, moderated the session, introducing the tools developed by UN agencies to integrate sustainability principles in mining policies.

Gankhuyag, UNDP, emphasized "development for people" as the motivation that drives her agency, and presented two publications that help governments address challenges in mining: "Managing Mining for Sustainable Development: A Sourcebook"



L-R: André Xavier, CIRDI; Mónica Ospina, O Trade; and moderator Wendy Tyrrell, Development Partners Institute

and “Extracting Good Practices: A Guide for Governments and Partners to Integrate Environment and Human Rights into the Governance of the Mining Sector.” She described UNDP’s work on extractive industries for sustainable development through its Development Minerals Programme in African, Caribbean and Pacific states, and its programme work on environmental governance of the mining sector.

Ida Hyllested, UN Children’s Fund (UNICEF), presented its Child Rights and Mining Toolkit and results from a study examining how children are affected by the mining industry, describing children as both rights holders and relevant stakeholders for business. She stressed that children are more vulnerable to the impacts of mining than adults and noted that UNICEF’s work is part of an effort to encourage businesses and governments to go beyond their current focus on child labor.

Harikrishnan Tulsidas, UN Economic Commission for Europe (UNECE), presented on the UN Resource Management System, which he said can serve as a “Swiss army knife” to address multiple facets of sustainable development within the global workspace. Noting that mineral resources are essential for achieving the SDGs, Tulsidas asserted that mining is often seen as an undesirable activity, partly due to the terminology and imagery associated with mining.

A participant suggested that LSM operators tend to be more compliant, whereas small-scale mining is often associated with problems and illegality. In closing, Coke-Hamilton reflected on the complexity of the human dimension in mining and sustainable development.

Session 19: New Technology, New Deal: Implications for Future Mining Tax Regimes

Moderator Alexandra Readhead, IGF Secretariat, asked panelists whether countries are likely to benefit if technological change leads to increased profitability of mining companies. She further questioned whether the risks to companies would also change, and whether governments will face greater complexity in addressing tax evasion.

Ross Lyons, mining tax consultant and former Rio Tinto employee, stressed that the company’s focus is on increasing efficiency of extraction and transport of ore, rather than reducing jobs. Citing efforts to develop driverless trains in the Pilbara region of Western Australia, he noted that it is unclear whether the company’s investment in this technology will ultimately achieve increased revenue and profitability.

Chris Sanger, EY, added that efficiency takes different forms, noting, for example, that technology that accelerates the rate of ore extraction is different from the social gains achieved from technology that extends the life of an old mine, and that tax policy should treat these gains differently.

Boitumelo Moche, South African Revenue Service, suggested that, for countries to benefit from efficiency gains in mining, programmes would need to be established to make that happen, and it is not clear who would fund those. He highlighted the need to develop intellectual property “at the local level.”

Panelists discussed what tax reforms would enable host communities to share in the benefits from the mining sector’s increased profitability, while creating an enabling environment for technological innovation. Participants asked what challenges new technologies are posing for tax regimes. They raised issues relating to intellectual property, accessibility and costs of data, and profit shifting based on remote operations. Panelists commented that digital technologies can improve governments’ capacity and efficiency to collect taxes, and that governments

should use a holistic approach to promoting technological innovation and benefit sharing. Recognizing uncertainty about the impacts of new technology on profitability, Readhead concluded the session by highlighting the need for governments to further engage with the private sector.

Session 20: Closing Plenary

IGF Chair Medina expressed appreciation for the presentations and discussions, noting they had provided members with comprehensive material to take back to their respective governments.

Coke-Hamilton, UNCTAD, congratulated the IGF for tackling complex and sensitive topics in the mining sector through this year’s theme of using legal frameworks to underpin accountable, equitable and innovative approaches. She urged participants to develop “advanced solutions” to the challenges posed by automation and the impacts of ASM, especially with regard to women. She pledged UNCTAD’s continued support for the governments of mining countries through the IGF and its AGM.

Nathalie Bernasconi-Osterwalder, IISD, thanked participants for their contributions, and UNCTAD for hosting the AGM. Noting the importance of legal frameworks to the mining sector, she highlighted that rules must be clear, laws and codes coherent, and contracts fair. Innovation and voluntary standards, Bernasconi emphasized, can enable adaptation to new circumstances, such as the current context of increased demand for lithium. She observed that voluntary standards are evolving to become mandatory requirements, but neither voluntary nor mandatory standards will make a difference if they are not inclusive in their design and implementation.

Responding to the Secretariat’s invitation to propose topics for further discussion at regional meetings or the next AGM, participants expressed interest in: mine closure and rehabilitation; shared-use infrastructure; establishment of research laboratories; and women’s participation in mining activities and associated child care. An Asian delegate expressed appreciation for the knowledge and good practices shared at the AGM, and declared his intention to encourage all members of the Association of Southeast Asian Nations to join the IGF.

Medina affirmed the role of mining as a major force to combat poverty, and expressed confidence that the IGF will continue to improve the capacities of governments worldwide. He invited participants to the 15th AGM from 7-11 October 2019, and gavelled the meeting to a close at 5:16 pm.



Alexander Medina, Chair, IGF, gaveling the meeting to a close

Upcoming Meetings

5th Annual International Mining and Resources

Conference (IMARC): The IMARC programme covers all aspects of mining, from exploration to investment, production to optimization through to new technologies, future energy and infrastructure projects, as well as workforce development. Thirty-five mining ministers are expected to attend the conference.

dates: 29 October – 1 November **location:** Melbourne, Australia **contact:** IMARC Secretariat **phone:** +61 3 9008 5946 **email:** info@imarcmelbourne.com **www:** https://imarcmelbourne.com

Second Meeting of the Conference of the Parties to the Minamata Convention on Mercury (COP-2): The Minamata Convention marked its first anniversary on 16 August 2018, and to date has 95 members. COP-2 will consider draft guidelines on interim storage of mercury and mercury compounds, as well as on conducting effectiveness evaluation. **dates:** 19-23 November 2018 **location:** Geneva, Switzerland **contact:** Interim Secretariat of the Minamata Convention **fax:** +41-22-797-3460 **email:** mercury.chemicals@unep.org **www:** www.mercuryconvention.org

UN Framework Convention on Climate Change

(UNFCCC) COP-24: COP 24 is scheduled to adopt the Paris Agreement Work Programme (PAWP). **dates:** 3-14 December 2018 **location:** Katowice, Poland **contact:** UNFCCC Secretariat **phone:** +49-228 815-1000 **fax:** +49-228-815-1999 **email:** secretariat@unfccc.int **www:** http://unfccc.int/

Investing in African Mining Indaba: This annual event brings together investors, mining companies, governments, and other stakeholders to support sustainable development of mining on the continent. **dates:** 4-7 February 2019 **location:** Cape Town, South Africa **www:** https://www.miningindaba.com/ehome/index.php?eventid=283869&

Prospectors and Developers Association of Canada (PDAC) 2019 Convention: The PDAC International Convention, Trade Show and Investors Exchange brings together people, companies and organizations connected with mineral exploration. **dates:** 3-6 March 2019 **location:** Toronto, Canada **contact:** info@pdac.ca **www:** http://pdac2019.org

Fourth session of the UN Environment Assembly (UNEA-4): UNEA-4 will take place on the theme of ‘Innovative Solutions for Environmental Challenges and Sustainable Consumption and Production (SCP)’. UNEA-4 is expected to deliver a ministerial outcome document outlining priorities for enabling SCP to become a reality around the world. **dates:** 11-15 March 2019 **location:** Nairobi, Kenya **contact:** UN Environment Secretariat **phone:** +254-20-762-1234 **www:** http://web.unep.org/environmentassembly/node/40724

High-Level Political Forum on Sustainable Development Development (HLPF) 2019: The seventh HLPF, convening under the auspices of the UN Economic and Social Council (ECOSOC), will address the theme, “Empowering people and ensuring inclusiveness and equality.” HLPF 2019 will conduct an in-depth review of SDG 4 (quality education), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 13 (climate action) and SDG 16 (peace, justice and strong institutions), in addition to SDG 17 (partnerships for the Goals), which is reviewed each year. **dates:** July 2018 (TBD) **location:** New York **contact:** UNDESA **email:** https://sustainabledevelopment.un.org/contact/ **www:** https://sustainabledevelopment.un.org/hlpf

IGF 15th Annual General Meeting: IGF is a global venue for dialogue among member countries, mining companies, industry associations and civil society to support governments in their development and adoption of mining policy. **dates:** 7-11 October 2019 **location:** Geneva, Switzerland **e-mail:** secretariat@igfmining.org **www:** http://igfmining.org/

World Resources Forum (WRF) 2019: WRF is the science-based platform for sharing knowledge about the economic, political, social and environmental implications of global resource use. WRF promotes innovation for resource productivity by building bridges among researchers, policymakers, business, small and medium enterprises (SMEs), NGOs and the public. This meeting is organized in partnership with the Public Waste Agency of Flanders Region of Belgium (OVAM), the principal authority in the Flanders Region of Belgium for sustainable management of waste, materials and soils. The conference will focus on the circular economy, cities and regions as laboratories for circular change. **dates:** 24-27 February 2019 **location:** Antwerp, Belgium **contact:** WRF Secretariat **phone:** +41-71-554-0900 **email:** info@wrforum.org **www:** https://www.wrforum.org/event/world-resources-forum-2019/

Acronyms

AfDB	African Development Bank
AGM	Annual General Meeting
ASM	artisanal and small-scale mining
BGR	Federal Institute for Geosciences and Natural Resources, Germany
CSD	UN Commission on Sustainable Development
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
GDP	Gross Domestic Product
GIZ	German Corporation for International Cooperation
ICMM	International Council on Mining and Metals
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
IISD	International Institute for Sustainable Development
LSM	large-scale mining
MPF	Mining Policy Framework
OECD	Organisation for Economic Co-operation and Development
PNG	Papua New Guinea
Rio+20	UN Conference on Sustainable Development
SDGs	Sustainable Development Goals
SEA	strategic environmental assessment
UNCED	UN Conference on Environment and Development, or ‘Earth Summit’
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNECA	UN Economic Commission for Africa
UNICEF	UN Children’s Fund
WSSD	World Summit on Sustainable Development