

Raw Materials & Environment 2019

Environmental Issues of Mineral and Metal Supply in a Broader Sustainability Context

19 - 20 February 2019 in Berlin, Germany

Summary of key discussions and findings

Background of the conference: A need for solution-oriented dialogue

- ▶ Raw Material demand is expected to increase alongside global population growth because raw materials will be needed for the development and prosperity of current and future generations, both in countries of the Global North (mainly importing countries) and the Global South (mainly exporting countries). Furthermore, future and low-carbon technologies urgently needed to address environmental problems require various minerals.
- ▶ Hence, mining activities remain important to satisfy mineral demand, even in a fostered Circular Economy. The major part of the global metal demand will (have to) be met by mining - at least until the middle of the century.
- ▶ According to PureEarth, mining is the second most polluting industry worldwide after lead battery recycling. Recent examples like the Brumadinho dam collapse in Brazil are a reminder of the need to take action in order to safeguard human lives, livelihoods and nature alike. Fostering responsible mining for sustainable development, however, has to go beyond the technical issues related to tailing facility management and minimising accidents. It also stretches out to catering for social, political and economic issues in the specific local and regional contexts of mining activities, for instance encompassing concerns about the human rights of mining workers and communities surrounding mines, or implications of an economic dependency on raw material extraction, particularly by countries of the Global South.
- ▶ Society finds itself currently in a “Mining Resources Conundrum”, where we need resource extraction, but this comes with high risks that are potentially undermining our future. Cost, risks and responsibilities are often either distributed unfairly or not well defined, and accountability is not in place.
- ▶ The conference “Raw Materials and Environment 2019” served as a platform, for representatives from business and industry, civil society, policy and science to engage in a constructive and open dialogue to highlight key challenges and discuss possible approaches for dealing with and potentially solving these.

Raw Material Management and challenges regarding environment and society

During the conference, participants discussed several, closely related challenges of raw materials management:

Challenge 1: Long-term impacts of mining activities mismatch short-term expectations of investors, of benefit distribution and of market mechanisms

- ▶ Mining operation as an economic activity is long-term, but many mining companies still don't take sufficient account of the long-term effects, impacts and benefits of their operations! Thus, there is a big challenge regarding how to avoid or repair the damage of long-term operations and how to reduce the dominant short-term perspective of raw material markets. The issue of environmental liabilities is also crucial, regarding how to address the past (legacy mines, already caused damage) but also the future (mine-closure management as a way to avoid liabilities and mitigate damage)
- ▶ Existing and new mining sites, incl. new explorations/concessions, are needed but in a very different set-up and culture than in the past decades:
 - all mining activities must be cleverly and robustly designed for long-term resilience (to accommodate the huge unknowns of the systems mining operates in) as well as for fair distribution of access, benefits, risks and responsibilities (incl. for past liabilities)
 - companies need to be asked to, and supported in, deliver on social and environmental well-being;
- ▶ This situation discourages putting safety over costs:
 - Tailing dam management currently focused on economic aspects rather than on the safety, which has created a situation in which accidents are the main driver for changes
 - every mine is different and needs best management approach according to its environmental, social and biophysical context in order to deliver on the local needs (e.g. rent seeking, economic diversification), but an overarching compass should foster orientation towards SDGs and global joint responsibility, e.g. a Sustainable Development License to Operate (SDLO)

Challenge 2: Diversity of stakeholders involved, which are not properly integrated in the process of finding a common ground for solutions to the problems

- ▶ **Governments** are responsible for design of the fiscal and regulatory regimes for extractive industries to ensure that mining makes net positive and fairly distributed contributions to society (revenue sharing, downstream linkages, local content, etc.) and damage to the environment is minimized by internalization of external costs. Voluntary standards cannot and shall not substitute government regulation and supervision, but their effectiveness depends upon sound regulatory regimes.
- ▶ **Mining Companies** are responsible for the extraction, tend to invest large sums in exploration and expect turnover for these investments. They are involved in the majority of conflicts surrounding mining activities and have therefore gained a rather bad reputation for environmental damage and human rights violations.
- ▶ **Initiatives:** mainly voluntary, apply different standards, initiated and promoted by different stakeholders, and in most cases work independently from each other in a segmented way. Initiatives are initiated by different actors and have different goals and levels of

comprehensiveness. For instance, some initiatives apply relatively rigorous compliance mechanisms, such as third party independent assessments, while others rely on self-assessment by the industry.

- ▶ **Investors and bankers** are key players, though not yet sufficiently involved in the process of creating change in the mining industry.
- ▶ **Consultants and investors** are mostly not subject to a code of ethics.
- ▶ **Civil society:** Many conflicts related to mining are closely related to a lack of inclusion of affected communities in decision-making. For instance, the granting of concessions for underground resources before clearing issues of land use rights is an issue in Peru, (particularly problematic in indigenous land).
- ▶ **Informal sector:** Informal mining activities are very widespread, but they are often disconnected from other stakeholders. For instance, artisanal and small-scale miners are often neglected or criminalized by public policy and/or seen as a threat by companies. Thus, their activities remain unregulated and tend to be left out of the scope of initiatives or any kind of standard.
- ▶ Early and continuous multi-stakeholder involvement of companies, public sector and third sector (including civil society) is key.

Challenge 3: The size and complexity of value chains complicates executing responsibility and due diligence along supply chains

- ▶ Downstream manufacturing companies (OEMs) face very complex, diverse and long global supply chains which makes establishing transparency and responsible business conduct a big challenge, which is increasingly tackled by frontrunner companies.
- ▶ Pressure comes mainly from downstream: industries upstream care less where their raw materials come from (profit over ethics)
- ▶ Consumer awareness about the impacts of the materials in the products they consume is rather low.

Challenge 4: GHG emissions of mining operations and resilience towards climate change

- ▶ Mining operations have a large energy demand, which they currently serve mainly through fossil fuels.
- ▶ The energy transition in the mining sector is possible, but faces various challenges, for instance regarding the question whether mines are connected to the grid and can therefore, if local regulations allow it, sell their energy surplus, or what is produced after the mines close, or not.
- ▶ Climate change is likely to increase the necessity for long term planning and consideration of adaptation regarding floods and wind (relation to challenge 1), but there is still a big knowledge gap to this respect

Improvement options and fostering Raw Material Governance as an overarching approach

A variety of improvement approaches regarding different of the above challenges were widely discussed:

Regulation:

- ▶ Clear sanctions and punishment for crimes (like the recent tailing dam break in Brazil)
- ▶ Global North should export standards and good practices, e.g. appropriate tailings management (to make safety not an accident) and banning of inappropriate technologies/set-ups
- ▶ Use regulation to work through the value chain towards change, e.g. use of national and EU law to drive sustainability along global value chains in mining.
- ▶ A level playing field is needed to help downstream companies (e.g. OEMs) achieving full transparency along their supply chains. Frontrunner downstream companies implementing responsibility along their supply chains call for internationally agreed supply-chain-due-diligence regulations covering human rights, social and environmental aspects.

Culture of mining companies and safety of mining practices:

- ▶ Incentivising a cultural transition in the mining industry and a long-term oriented planning that effectively takes into account questions regarding the future. For instance a culture that is oriented at long-term resilience and adaptation abilities of technical infrastructures and social and urban structures built up during the mine life-cycle as well as at the societal fairness of contracts and concessions to extract raw materials.
- ▶ Regarding safety of mines, to use a “design life” approach: not perfect design, but monitoring, resilience and ability to act when problems are detected.
- ▶ A shift towards a more long-term planning in mining industry should come hand-by-hand with considerations to climate change adaptation, also to reduce the potential environmental and public health risks of future mining projects.
- ▶ Give companies recognition for being first movers and honour the efforts of frontrunner companies. For instance, in the downstream sector (e.g. in the automotive industry), companies increasingly commit to more transparency and responsibility in their supply chains.
- ▶ Some companies are also willing to pay more to their suppliers for sustainably produced raw materials and commodities.
- ▶ Invite companies to improve environmental and social performance from whatever level to start, e.g. applying standards providing tiered requirements.

Supply chain management and due diligence

- ▶ Increased integration of environmental criteria and reporting in existing standards (for instance, the cross-sectoral OECD Guideline for Responsible Business Conduct has an environmental chapter). Mining sector specific environmental due diligence guidances do not exist (yet).
- ▶ Foster and export best practices and what we do well, not burden and liabilities

Initiatives and voluntary standards:

- ▶ Voluntary Standards are helpful, but need to be developed cooperatively with all involved stakeholders (investors, industry associations, civil society). However, standards like IRMA are only part of a process, which needs a clear regulatory framework (for instance for liabilities and accountability) and the active participation of all involved stakeholders, which requires the availability of information to the public (particularly affected/involved population).
 - Debate regarding how participatory the development of such standards or other governance mechanisms should be. Questions such as who can be considered a concerned/relevant stakeholder and who decides this were raised.
- ▶ Comprehensive, civil-society driven approaches to socio-environmental standards such as IRMA can be a solution. It will remain difficult to harmonise the various existing initiatives existing to this regard, due to the large differences between scope and interests of players involved. (link to challenge 2)
- ▶ Initiatives, even if goals and scopes differ, can mutually recognise and cross-reference their standards to support harmonisation.
- ▶ Use of voluntary initiatives as a tool for formalising ASM, for instance via CRAFT.

Further inclusion of the financial sector and investors

- ▶ Putting (environmental and social) safety over costs, curing “Quarteritis” (sole or main focus of financiers rests on quarterly financial reports of mining companies and short-term return-on-investments thus discouraging any investments in sustainability, which will pay off in the long-term only) in financial and banking sector investing in mining. “Short-termism” can be counteracted through more integrated value chain approaches (e.g. Euromines is working on this issue). This could be overcome for instance by changing financing models so that they can fit to larger time frames and allow investing in real long-term operations. Sweden was cited as a best-practice example in this regard.

Overarching issues and governance

The issue of improving global raw material governance was widely discussed as an approach to tackle the various issues related to meeting the future demand for raw materials without putting socio-ecological conditions at risk.

- ▶ Differing interest of Global North and Global South regarding raw materials management:

- Global North: security of supply, resource efficiency (maximum use of domestic resources, including secondary raw materials)
- Global South: economic transformation/diversification, type of rents, added value activities

► Need for and scope of an international treaty on mining?

- A treaty would have to be holistic, but the difficulty is more for it to be “negotiable”. Negotiations potentially very difficult, long and perhaps controversial. Result likely to be rather lacking concrete details, as it will have to be based on consensus of all parties required if it ought to be a success.
- Suggestion of “extraterritorial” mechanisms such as EU policies (importing countries) for supply-chain-due diligence obligations for up- and downstream companies as an alternative, in order to temporarily “outsource” effective regulation and enforcement that is not in place in many producing countries.
- Voluntary standards such as IRMA can play a role in supporting governments to develop better regulations for mining. They can also support companies to take the first step forward and give them recognition as well as implementing supply-chain-due-diligence obligations.

► Decision-making currently focused on sectorial policies, which cannot address the issues effectively anymore. There is a need for more holistic policies. There is a need to link the silos. Same applies for research: There is need to enhance cooperation of “bean counters” and “story tellers”.

► As the biggest player worldwide, with large parts of the value chain located within its borders, China plays and will continue to play a very important role in raw material governance. Thus, it is crucial to further integrate China, value more their contribution to environmental standards and work towards the development of a common standard.

In general, conference participants concluded that it is necessary to build global bridges for dialogue at eye-level with old and new players. This requires honest and open multi-stakeholder exchange processes on a level playing field, with a stronger involvement of bankers and financers, in order to strengthen long-term and sustainability-oriented values and decision-making criteria as the basis for financing decisions

Main takeaways and lessons learnt

The global raw material demand will continue to grow in order to fulfil various societal needs (e.g. socio-economic development and industrialisation in the global south; low-carbon and other future technologies for the energy and mobility transition). In order to reach decoupling of raw material demand and related negative impacts:

► The negative impacts related to resource extraction and use regarding human health, human development and environmental degradation are addressed systematically and can be thus avoided

- The energy and the GHG-intensity of raw material extraction can be reduced, particularly through the use of renewable energies for mining activities

A long-term, sustainable raw material management is indeed possible, for instance illustrated by:

- The various controversial, but constructive discussions between representatives from industry, policy, academia and civil society during the conference
- The example of existing, far-reaching activities in down-stream companies from the automotive industry, aimed at increasing the transparency and improving the sustainability performance along their complex supply chain
- The example of recent developments in the Australian state of Queensland, where for the first time in history an application for coal extraction has been denied due to environmental reasons (climate change mitigation).
- Societal values gaining importance: The engineers responsible for the Tailing Dam Failure in Mount Polley Canada have been accused of violating the Code of Ethics for Engineers.

The impact of mining activities is currently at a momentum worldwide, mainly due to accidents such as Brumadinho in Brazil, which have caused a severe reputation damage. Therefore, it is now a good timing to get the engagement of all stakeholders in order to find common answers to the problems surrounding this very important industry.

Framework conditions must be put in place that enable and incentivise companies to be first-movers and to also deliver on social and environmental well-being towards a Sustainable Development License to Operate, as proposed by UN Environment's International Resource Panel. And finally, this requires building global bridges for dialogue at eye-level with old and new players along global supply chains.