

An Invitation to Explore Responsible Sourcing of Sand and Silicates

Final Report from a roundtable discussion at the OECD 2023 Forum on Responsible Mineral Supply Chains, 27 April 2023



About

Sand and other silicate materials are the world's most extracted solid raw material that has largely eluded the progress made on responsible sourcing of minerals. Industrial sands, clays, stones and construction aggregates are essential to a wide variety of end-use products and applications, including transitions towards climate and nature-positive enterprises, economies and societies.

At the same time, sand and other silicate mineral extraction has been associated with serious social and environmental challenges. Excluding these materials from supply chains and production processes is not easy to do precisely because they are so pivotal. Given this dilemma, it is time for a conversation on how silicate mineral sourcing and use practices can become sustainable and responsible.

The Development Minerals Program at The University of Queensland's Sustainable Minerals Institute is pursuing the question of what sourcing standards and practices for silicate minerals may be needed in future with Inter IKEA as our primary corporate partner. Our work together advanced our understanding of risks and responsibilities in sand and silicate sourcing. It also left us curious about the perspectives and experiences of other actors in sand supply and value chains and we took a first step at the 16th OECD Forum on Responsible Mineral Supply Chains in April 2023 to open the discussion to others.

The intention behind the roundtable was to facilitate a rich conversation between upstream and downstream sectors on responsible sand sourcing and find additional partners willing to explore this theme further with us. Similarly, the intention behind sharing the perspectives raised is to extend the invitation to other interested stakeholders to get in touch.

Development Minerals Program project team

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Acknowledgements

Thank you to attendees of the partners session at which the roundtable was held on 27 April 2023, the organisers of the OECD Forum on Responsible Mineral Supply Chains and to the responsible sourcing of inorganic raw materials team at Inter IKEA.

Suggested citation

Holm D., Gallagher, L., Franks, F. (2023), An Invitation to Explore Responsible Sourcing of Sand and Silicates. Final report from a roundtable discussion at the OECD 2023 Forum on Responsible Mineral Supply Chains, 27 April 2023. The University of Queensland. Queensland, Australia.

Roundtable summary

Introduction

The University of Queensland in collaboration with Inter IKEA convened a roundtable discussion on responsible sourcing of sand and silicates in April 2023. The roundtable was held as a partner session within the 2023 OECD Forum on Responsible Mineral Supply Chains in Paris.

The session was attended by representatives from companies across the sand and silicate value chains, including major brands in the quarrying, dredging, construction, manufacturing, kitchen, bathroom, homewares and automotive sectors. Also in attendance were industry organisations representing these sectors, standards and certification bodies, international organisations, NGOs and other interested attendees.

Discussions explored three broad questions:

- 1) How are we experiencing the sourcing of sand and silicates today?
- 2) What could we do together, within existing standards and outside this model in partnerships and collaborations?
- 3) Reflecting on our journeys with other commodities, what could we learn for responsible sand and silicates sourcing?

To encourage a free exchange of experiences and ideas, the session was held under the Chatham House Rule, which states that:

When a meeting, or part thereof, is held under the **Chatham House Rule**, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.¹

Consequently, the following report provides a summary of the discussion, but does not attribute any statement to any organisation. The report has been prepared by the University of Queensland.

Setting the Scene: Why talk about responsible sourcing of sand and silicate materials now?

Sand and silicates are the world's most extracted raw materials and they are ever-present in the modern economy, essential for local, national and regional development. One participant commented that sand may be more critical to global development than the so-called critical minerals. Precisely because of its ubiquity, context matters when discussing sustainability challenges and opportunities. These differ depending on the material, the nature of extraction, the market and supply chain.

Sand and silicates are coming into the global conversation about responsibility and sustainability surrounding minerals. Some recent news reports have highlighted sustainability challenges associated with sand extraction, and in 2019² and 2022³ UNEP produced reports exploring issues and providing recommendations for strengthening the governance of sand supply chains. Challenges associated with

¹ <https://www.chathamhouse.org/about-us/chatham-house-rule>, last accessed 26 May 2023

² UNEP. (2019). *Sand and sustainability: Finding new solutions for environmental governance of global sand resources* (p. 35). GRID-Geneva, United Nations Environment Programme. https://unepgrid.ch/storage/app/media/documents/Sand_and_sustainability_UNEP_2019.pdf

³ UNEP. (2022). *Sand and sustainability: 10 strategic recommendations to avert a crisis*. (DTI/2430/GE; p. 75). GRID-Geneva, United Nations Environment Programme. <https://unepgrid.ch/en/resource/2022SAND>

sand and silicates span environmental and social sustainability, human rights, business resilience and development trajectories

In light of this, it is timely to accelerate the conversation around responsible sourcing of sand, and this session provided a step in that direction. A premise behind the session was that it is important to connect actors in the upstream and downstream parts of the supply chain in a discussion. It was held at the OECD Forum on Responsible Mineral Supply Chains⁴, as this provides a venue for private, public and civil society sector entities to meet and discuss issues surrounding responsible sourcing of minerals. Further, OECD's Due Diligence Guidance together with associated OECD instruments provide a globally accepted process for conducting responsible sourcing of minerals.⁵

Key takeaways

- Sand and silicates are ubiquitous and critical to the modern economy and as a vehicle for local development.
- Responsible sourcing questions are starting to be asked in some downstream sectors.
- It is becoming urgent to advance the conversation around responsible sourcing of sand and silicates.

How are we experiencing the sourcing of sand and silicates today?

Representatives from a range of companies at various positions in the sand value chain described what they are currently doing to ensure a responsible supply of sand and silicates. Companies included those involved in construction materials, homewares, bathroom products, automotive, marine sand extraction and others.

Several issues or risks were mentioned, including fair pay, workers' rights, transport of material, carbon footprint and others. At the point of extraction issues such as land use planning, permitting and social acceptance were discussed, as well as opportunities to improve biodiversity in post mining land uses.

Some commented on their existing initiatives and strategies. These included addressing sand or silicates within their sustainability strategy or using certification for environmental management (ISO 14000) or sustainable procurement (ISO 20400). Other initiatives include upcoming contributions to identifying good practices in the dredging industry and advances in dredging vessel tracking.

Recycling can be part of the picture, however, in part due to customer demand for quality and appearance of some products, recycling is often not an option. Consequently, sourcing responsibly and sustainably from primary sources will remain a focus feature for industry efforts.

Companies commented that the questions they receive from their downstream customers helped them improve their practices. On the flip side, one company representative commented that they were not frequently asked due diligence related questions from their customers, particularly in the jurisdictions where they would expect or hope to be asked. Other challenges mentioned included the complexity or lack of transparency in the supply chains.

There were also comments about the need for downstream demand for responsibly sourced products to instigate better practices.

⁴ <https://www.oecd.org/corporate/mne/forum-responsible-mineral-supply-chains.htm>, last accessed 26 May 2023

⁵ The full title of the guidance is "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas". Other relevant instruments include the OECD Guidelines for Multinational Enterprises and the forthcoming OECD Environmental Due Diligence Handbook.

Key takeaways

- Sand and silicates are relevant for a wide variety of sectors, companies and products.
- There is a multiplicity of issues, risks and opportunities associated with sand and silica materials, spanning the environmental and social domains, and ranging from site based to industry wide in their scope.
- There is an appetite in the sector for sourcing sand responsibly, but there are divergent practices and demand for responsibly sourced sand and silicates will need to be stronger for those to converge to an accepted set of best practices.
- Companies have implemented various initiatives and systems in relation to sand sourcing and management but are mostly in the early stages in their sand and sustainability journey.

What could we do together, within existing standards and outside this model in partnerships and collaborations?

When talking about what can be done together to address the issues around responsible sourcing of sand, several companies mentioned that – individually – they were small consumers of sand. In this context, one reflection resonated with the group: individually, we all may be small consumers due to the wide and geographically dispersed nature of the sector but collectively we all contribute to global production and demand. This feature of sand and silicates underscores the importance of collaboration across the industry. Supply chain collaboration was discussed, naturally, as was the importance of involving civil society organisations such as NGOs and unions in dialogue and actions towards cooperation from the outset. The latter was raised by some industry participants and welcomed by some of the non-governmental organisations present. The notion that collective leverage to jointly lift standards can be generated through cooperation in and across sectors was proposed, based on experiences with other efforts to source responsible mineral supply.

Beyond standards, a representative from ICMM – the International Council on Mining and Metals – talked about circular economy as a resource solution in the mining sector, including process circularity. Some mining companies, including an ICMM member, are exploring producing sustainable sand – ore sand – as a co-product of mining that could go some way towards meeting any new demand for alternatives. Other attendees reflected on how their efforts already underway to improve materials management in production processes and recycling rates had depended on close cooperation with their suppliers and downstream supply chain partners.

In reflecting on opportunities for collaboration, some participants also talked about recognizing the role of sand and silicates as development minerals enabling local and domestic construction and consumer goods production. When considering collective efforts, it was suggested it was important to consider whole production networks including consideration of smaller actors that can be overlooked. For example, small scale miners have a significant role in these in many places in the world. Traders also play an important role in these networks and should not be excluded. It was also noted that it was important to be comfortable with a level of risk when engaging with supply chains that are less formal.

Key takeaways

- There is a need and appetite for collective action towards responsible sourcing of sand and silicates.
- All actors are small individually, and therefore it is important to collaborate to address common challenges.

Reflecting on our journeys with other commodities, what could we learn for responsible sand and silicates sourcing?

Reflections from participants who had been involved in similar journeys for other commodities were that the session was asking good questions. The challenges and opportunities participants were raising were similar to what has been experienced in other commodities and it was suggested that the diversity of perspectives present in the room provided a solid start to the conversation.

Several participants discussed learnings from other sectors and minerals, including electronics and the critical minerals sectors. Several examples were mentioned. With regards to challenges associated with cobalt sourcing, a stakeholder group had been formed to discuss and address these within the auspices of the OECD. Other, more formalised, platforms which provided collaboration across the value chain, worked on developing common expectations for due diligence and provided training for their members on how to carry out due diligence were also mentioned.

A number of practical examples for steps on the responsible sourcing journey were provided. These included mapping the value chain to 'demystify' it and conducting a joint risk prioritisation exercise to create agreement on salient risks. The 'Material Change Report' produced by the automotive industry is one illustration.

With regards to certifications and labels, one participant relayed the experience of how a voluntary water label was created from five different water related standards. There are existing or developing labels for parts of the sand supply chain which are also important to consider. The developing FAST-Infra Sustainable Infrastructure (FISI)⁶ label for sustainable infrastructure is one example as mentioned by an attendee from the Global Infrastructure Basel.⁷

One organisation which was unable to attend the session provided a written statement, commenting on the importance of high standards for all types of extractive activity, including sand and silicates. There are existing standards which apply various forms of industrial scale mining, and which could also be applied to sand and silicates extraction.

Key takeaways

- Previous responsibility challenges around minerals provide important learnings and templates that can be relevant to sand and silicates. Recent relevant responses relate to cobalt and other critical minerals.
- Commencing a stakeholder dialogue across the supply chain is important.
- Mapping the sand and silicate supply chains and attendant sustainability risks are important first steps.

⁶ <https://www.fisilabel.com/>, website to be accessible from mid-June

⁷ <https://gib-foundation.org/>, last accessed 7 June 2023

Next steps

In the room, a call to action came to explore the creation of a platform mechanism to continue perspective sharing, knowledge exchange, and create opportunities for practical collaborations.

Feedback gathered immediately after the session reflected on how useful it had been to hear so many reflections from different parts of sand and silicate value chains, with eighteen well-developed interventions from the floor and thoughtful reflections from the three panel members. Many expressed an interest in continuing to participate.

A number of participants met following the session to tangible possibilities for cooperation. The following nine action items were proposed:

1. Establish a regular forum to continue the dialogue. This might take the form of a quarterly virtual meeting of interested companies and other stakeholders wishing to advance cooperation.
2. Reconvene at the 2024 OECD Responsible Minerals Forum.
3. As part of the above-mentioned forum establish a platform for the exchange and sharing of experiences by companies and other stakeholders and collect examples of good practice.
4. Conduct a study to identify and map baseline risks for a range of industries along the sand and silicates supply chains in the context of the OECD's Due Diligence Guidance, highlighting both human rights and environmental risks.⁸ The OECD Secretariat has indicated interest in partnering on such an initiative.
5. Support practice- and policy-focussed research to map and understand sand and silicate production networks and market systems in different global regions.
6. Support practice- and policy-focussed research to review existing approaches and standards undertaken by companies in other commodity sectors and consider the relevance and experience of these due-diligence efforts to the sand and silicates supply-chains.
7. Individual companies to conduct due diligence of their own supply chains, following the example of Inter IKEA and the process outlined in the OECD Guidance for Responsible Supply Chains of Minerals from Conflict- Affected and High-Risk Areas.
8. Explore possibilities for proactive initiatives by individual companies (and in collaboration) both within and outside of their own supply chains to improve human rights and environmental issues. Two possibilities raised include supporting practice change in collaboration with artisanal and small-scale mining associations; and public education and awareness raising on sand and silicate sustainability issues.
9. Form a 'Responsible Sand Initiative' that would instigate cooperative multi-stakeholder action, with representation from upstream and downstream private sector actors, with a remit to cover both sand and silicates, and explore options to govern and finance such an initiative and align or synergise with existing due diligence initiatives.

Conclusion

In closing, the session provided a wide variety of perspectives from both private sector actors in the sand and silicate supply chains, as well as NGOs, industry organisations and international organisations. Its value was – hopefully – in catalysing a conversation involving all stakeholders, to complement the emerging global policy conversations around responsibility and sustainability in sand and silicates. Several participants in the session have committed to taking this conversation further with ongoing dialogue and practical action. Interested stakeholders are invited to contact the University of Queensland team and join this process.

⁸ This study would follow the format of studies conducted with the OECD for other commodities (see for example: <https://mneguidelines.oecd.org/Gold-flows-from-Venezuela-supporting-due-diligence-on-the-production-and-trade-of-gold.pdf>).

