

Child labour in cobalt mining

A holistic view on the complexity of the issue and a reality check on the effectiveness of engagement

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In brief

- Cobalt is an essential battery mineral that will play a crucial role in the transition to a low carbon economy. However, 60%-70% of cobalt globally comes from the Democratic Republic of the Congo, where allegations of child labour and human rights abuses in cobalt mines are rampant.
- Given the uncertainties surrounding mineral supply chains and the growing regulatory focus on human rights due diligence in mineral sourcing, the failure to source cobalt responsibly could leave companies exposed to significant financial and reputational risks.
- To navigate this complex issue, it's important to be able to evaluate how companies are assessing the human rights and child labour risks in their cobalt supply chains, and the actions they are taking to prevent or mitigate these risks.
- Our engagement suggests that many companies are taking positive actions on responsible cobalt sourcing, but there are several areas for improvement that investors should be aware of as industry practices develop, and as regulatory scrutiny increases.

The problem with cobalt

The central role of battery technology in the carbon transition presents compelling long-term opportunities for investors as electrification transforms the global economy. However, rising demand for batteries also raises difficult questions, given the well documented human rights issues that surround the mining of the crucial minerals needed to make them. With regulatory pressures increasing, companies across a wide range of sectors could face significant reputational and financial penalties if they fail to carry out sufficient due diligence on mineral sourcing.

Cobalt is a mineral that is vitally important to the carbon transition, but where potential human rights abuses in supply chains—including the worst forms of child labor—could carry particularly acute risks to companies and investors.

Cobalt is used, along with other metals, to make cathodes, which are the positively charged electrodes in lithium-ion rechargeable battery cells. Cobalt is also a crucial component in many electronics, including integrated circuits and semiconductors. As a result, cobalt is essential for the production of a wide range of consumer goods, from mobile phones and tablet computers, to electric vehicles. As the carbon transition accelerates, demand for cobalt is only expected to increase. The International Energy Agency (IEA), for example, estimates that total global demand could rise by 60%-70% by 2040 under its Sustainable Development Scenario.¹

The problem is that more than 70% of global cobalt supplies come from the Democratic Republic of the Congo (DRC), where serious human rights and child labour issues in the mining industry have been identified, including the worst forms of child labour.^{2,3} Amnesty International's report "This Is What We Die For" sent shockwaves through the market in 2016, showing how artisanal cobalt from unauthorised mining areas in the DRC, including ore mined by children, can enter the global supply chain. The report also identified gaps in corporate disclosures and regulations relating to human rights abuses in the cobalt supply chain.⁴ Investors have since increased their engagement with companies regarding cobalt sourcing and the human rights due diligence measures that they have in place.

However, the issues raised are complex and the remedial actions can vary widely. Using the knowledge gained from our own enhanced engagement on cobalt sourcing, we have identified some industry practices that companies are adopting to help assess human rights risks in their supply chains and the methods they are using to help mitigate these risks. We also highlight the common areas where improved due diligence and stakeholder pressure are still required.

Human rights, child labour and the cobalt value chain

There are two types of mines in the DRC – industrial large scale mines (LSMs), and artisanal and small-scale mines (ASMs). ASMs, which contribute up to 30% of the DRC's cobalt supply, are more labour intensive than LSMs, with individual miners – men, women and/or children – working in family groups or in teams to mine cobalt using basic tools, typically without the use of machines.⁵

The lack of basic employment standards in many ASMs means human rights risks are elevated. Child labour is a particular concern, with child workers forced to scavenge for scraps of cobalt with simple equipment or with just their bare hands, usually without any protective gear and for very little money. Beyond the direct impact of working in mines, children in ASM communities can also suffer worse outcomes in terms of their overall living standards, physical health, social and emotional wellbeing, and their access to learning and education.

In total, there are thought to be up to 200,000 artisanal miners in the DRC, including an estimated 40,000 children working in ASMs in the south of the country.⁶ With approximately 87% of ASMs located on concessions dedicated to industrial mines, the cobalt produced by artisanal miners can find its way into global supply chains through depot agents or negociants, who sell the artisanal ore to processing facilities.^{7,8} According to the Organisation for Economic Co-operation and Development (OECD), a significant number of LSM operators, processors and refiners may blend artisanal cobalt with LSM materials in this way with little to no visibility into sourcing.⁹

The number of participants in the mining process, alongside a lack of adequate documentation, creates an opaque and often untraceable value chain for much of the cobalt produced in the DRC (**Exhibit 1**), making it almost impossible for companies to know whether the cobalt they are using in their products was mined responsibly or not.

¹ The International Energy Agency (IEA) works with countries around the world to shape energy policies for a secure and sustainable future. The IEA's Sustainable Development Scenario (SDS) offers a pathway for the global energy system to reach three strategic goals: the Paris Agreement's "well below 2° Celsius" climate goal; the goal to provide universal energy access; and the goal to substantially reduce air pollution.

² Baumann-Pauly, D., "Making Mining Safe and Fair: Artisanal Cobalt Extraction in the Democratic Republic of the Congo", World Economic Forum (Geneva, Switzerland; September 2020).

³ Gaffar, C., Kaempfer, I., "Opportunities for Businesses to Promote Child Rights in Cobalt Artisanal and Small-Scale Mining: A Study by Save the Children and the Centre for Child Rights and Business", Thinius, A., Nakschbandi, D., Schliebitz, E. (eds.), Save the Children (Berlin, 2021).

⁴ "This is what we die for: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt", Amnesty International (London, 2016).

⁵ "Making Mining Safe and Fair", World Economic Forum (Geneva, Switzerland; September 2020).

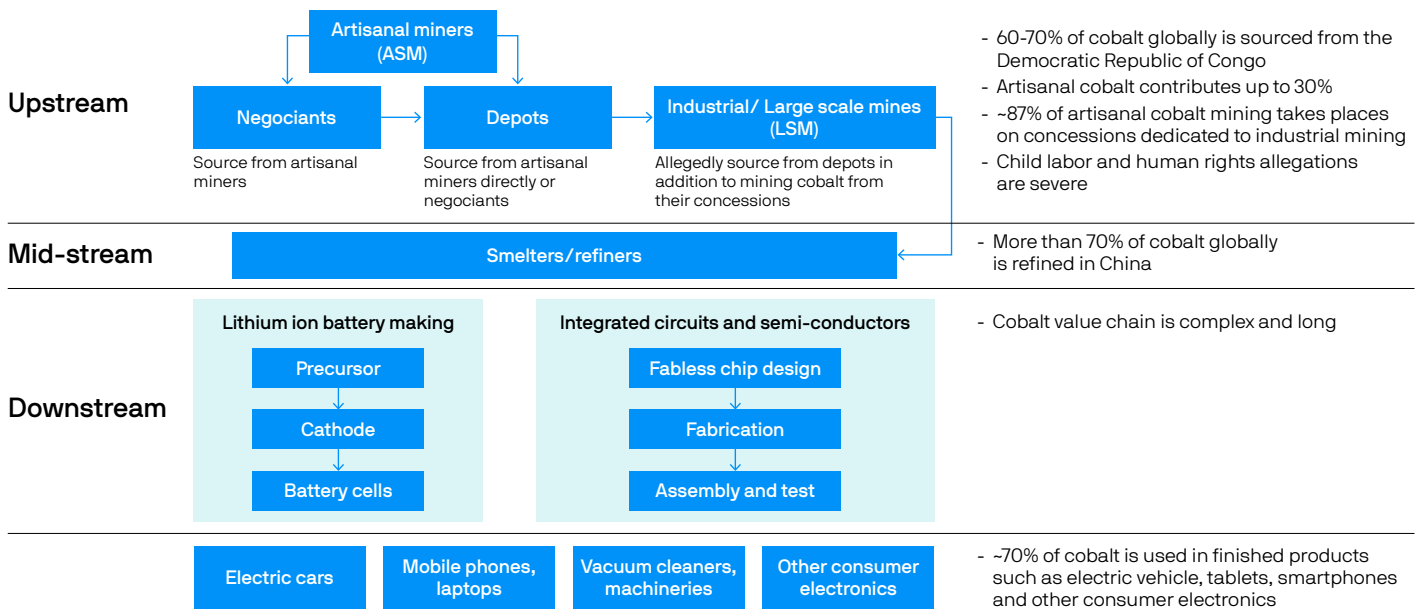
⁶ "Commodities at a Glance: Special Issue on Strategic Battery Raw Materials", Issue 13, United Nations Conference on Trade and Development (Geneva, Switzerland; 2020).

⁷ "Opportunities for Businesses to Promote Child Rights in Cobalt Artisanal and Small-Scale Mining", Save the Children (2021).

⁸ Kara, Siddharth "Cobalt Red: How the blood of the Congo powers our lives", (St Martins Griffin, 2022).

⁹ Organisation for Economic Co-operation and Development, "Interconnected Supply Chains: A Comprehensive Look at Due Diligence Challenges and Opportunities Sourcing Cobalt and Copper From the Democratic Republic of the Congo", OECD Responsible Business Conduct (2019).

Exhibit 1: The cobalt value chain is complex and opaque



Source: J.P. Morgan Asset Management, as at January 2024.

The importance of human rights due diligence

Cobalt is not a conflict mineral by legal definition and thus is not regulated by the US Dodd Frank Act or the European Union’s Conflict Minerals Regulation. Nonetheless, legal requirements related to human rights due diligence are evolving globally. As the impetus to conduct human rights due diligence increases, companies may be exposed to growing legal and reputational risks if they fail to pay close attention to cobalt supply chains.

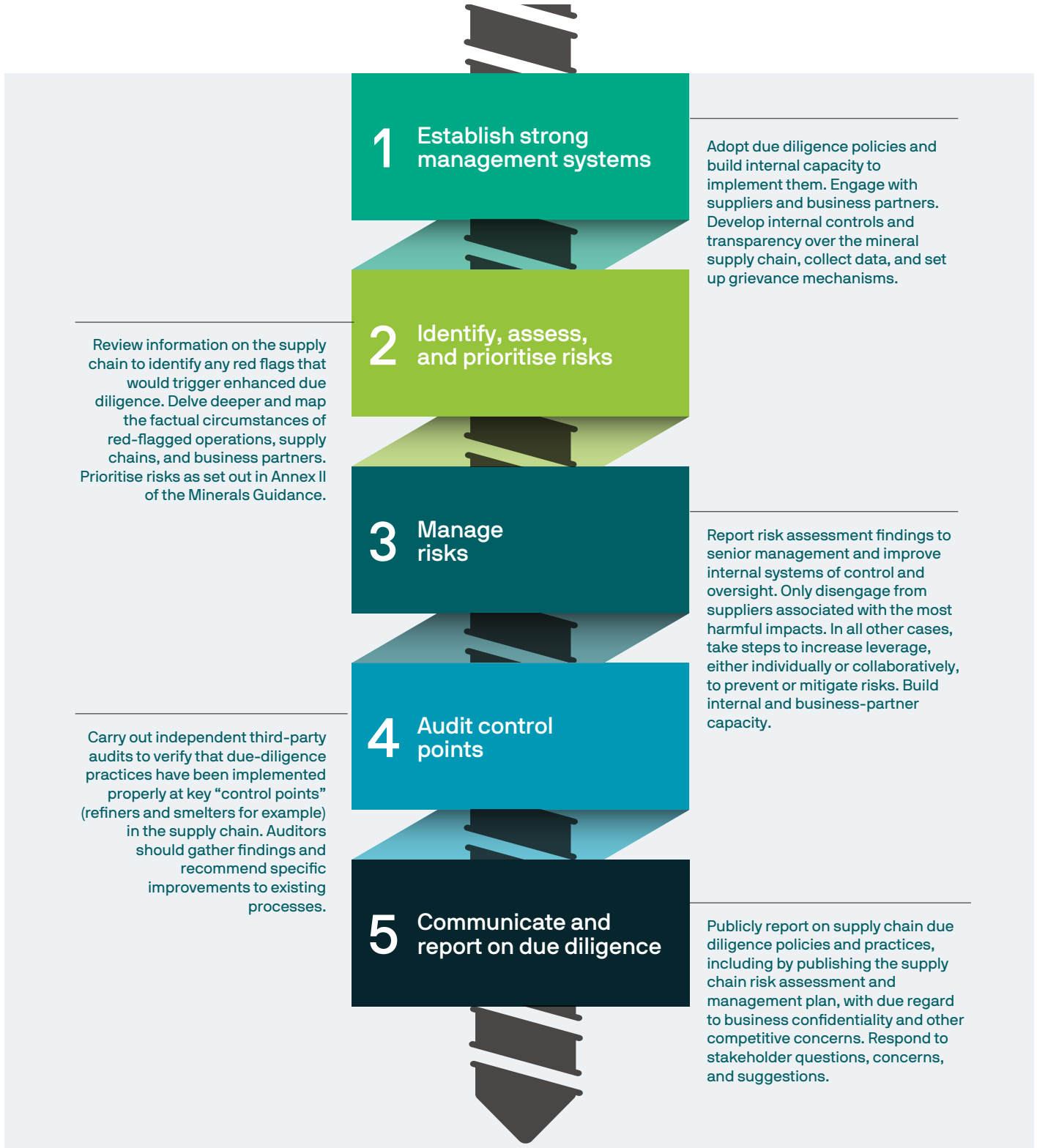
For example, the European Union’s proposed Corporate Sustainability Due Diligence Directive (CSDDD) would require all companies within its scope to implement due diligence measures to identify, end, prevent, mitigate and account for the negative human rights and environmental impacts of their actions, in value chains inside and outside Europe. The proposed directive would also require companies to monitor the effectiveness of their due diligence policies and remediate any adverse impacts. Non-compliance would be expected to result in financial penalties including civil liability. Depending on the final drafts, the proposed rule may also impact asset managers.

To help companies assess human rights issues in their mineral supply chains, the OECD has published a five-step framework for risk-based due diligence (**Exhibit 2**).¹⁰ Companies are increasingly referencing the OECD guidance, which applies to all minerals including cobalt, given it is mentioned in a range of international declarations, regulations and initiatives.¹¹

¹⁰ Organisation for Economic Co-operation and Development, “Monitoring Corporate Disclosure: Assessing Company Reporting on Mineral Supply Chain Due Diligence”.

¹¹ *ibid.*

Exhibit 2: The OECD'S five-step framework for risk-based due diligence



Source: OECD, 2024, Monitoring corporate disclosure: Assessing company reporting on mineral supply chain due diligence, URL: <https://mneguidelines.oecd.org/monitoring-corporate-disclosure-assessing-company-reporting-on-mineral-supply-chain-due-diligence.pdf>

Engaging on cobalt

Given the material financial risks related to human rights abuses and child labour in the cobalt supply chain, since 2022 J.P. Morgan Asset Management has enhanced its research and deepened its corporate engagement on these complex issues.

Our research efforts are focused on identifying the key questions that we feel companies should be able to address related to cobalt sourcing. As part of our research, we engage with various external stakeholders, including policymakers, standard setters and non-profit organisations involved in remediation action in the DRC. We have also attended the OECD’s annual responsible mineral supply chain forum in 2022 and 2023 to hear the diverse opinions of different cobalt value chain players.

To apply the insights gained from our enhanced research, we have selected 14 listed investee companies to discuss responsible cobalt sourcing in detail. These are all companies with a significant need for cobalt, where we have a large investment exposure in aggregate, and where management has been willing to engage on the issue of human rights risk. We prioritised downstream companies globally along the cobalt battery making and semiconductor value chain, such as battery makers, car makers, semiconductor companies and consumer electronic companies.

Our engagement on cobalt targets two vital questions:

- How are companies assessing the human rights and child labour risks in their cobalt supply chains?
- What actions are companies taking to prevent or mitigate cobalt labour human rights risks?

How are companies managing human rights risks in cobalt supply chains?

Based on the issues identified by our research, our engagement on the assessment of human rights risks in cobalt supply chains focuses on the use of the OECD due diligence framework; supply chain management; disclosure of human rights risks; engagement with rights-holders; traceability of cobalt supply chains; and the use of external assessments.

Our engagement findings (**Table 1**) show that improvement is needed in most of these six areas (shaded orange in the table). The areas shaded green are deemed to be satisfactory.

Table 1: Management of human rights risks

Engagement focus	Rationale	Findings
Referencing of the OECD due diligence framework.	The OECD guidance is referenced in a range of international declarations, regulations and initiatives.	Almost all (93%) of the companies we engaged with reference the OECD framework.
Discussion of supply chain management systems.	Step 1 of the OECD guidance expects companies to establish strong systems to manage the responsible sourcing of minerals.	Most companies that we engaged with (93%) said they have a supply chain management system to assess human rights risks covering cobalt. They usually ask their cobalt suppliers to fill out a Cobalt Reporting Template/ Extended Minerals Reporting Template.
Disclosure of salient human rights risks related to the sourcing of critical minerals, including cobalt.	A key indicator in step 2 of the OECD guidance that the OECD reports as a gap in corporate disclosure policies.	Only 14% of companies engaged disclose identified salient human rights risks by materials, including cobalt, and their respective findings along their supply chain.

Engagement focus	Rationale	Findings
<p>Demonstration of meaningful engagement with relevant rights-holders to identify and manage human rights risks.</p>	<p>A key indicator referenced by the OECD and UN Guiding Principles, which the OECD reports as a weakness in company disclosure policies.</p>	<p>Only 29% of companies that we engaged with were able to demonstrate that they had attempted to engage with relevant rights-holders, in this case the child miner. Usually, this engagement was indirect, through working with non-profit organisations that are providing support to child miners in the DRC. We concluded that child labour and small-scale mining in the DRC represent salient human rights risks for companies.</p>
<p>Traceability of the cobalt supply chains.</p>	<p>Step 4 of the OECD guidance expects downstream companies to identify the smelters and refiners in their supply chain and review the due diligence practices of its suppliers.</p> <p>As it has been reported that cobalt from ASMs is blended with LSM cobalt, it's important to understand traceability efforts up to and including mine sites.</p>	<p>79% of companies that we engage with use a Cobalt Reporting Template/Extended Minerals Reporting Template to conduct due diligence of their cobalt suppliers all the way up to the cobalt smelters/refiners.</p> <p>However, just 36% of companies showed evidence that they were attempting to trace cobalt right back to the mine site itself. Some tracing is achieved through industry partnerships such as the Global Battery Alliance (GBA), or the Responsible Minerals Initiative (RMI), which uses blockchain technology to trace cobalt from mines to smelters.</p> <p>How companies manage to trace the source of all cobalt, including cobalt that is co-mingled with responsibly-mined cobalt from LSMs, remains unclear.</p>
<p>Discussion of external assessments of cobalt sourcing.</p>	<p>Step 4 of the OECD guidance expects downstream companies to audit smelters and refiners in their supply chain, and often through external assessments.</p>	<p>79% of companies engaged use external assessments of mineral sourcing, such as the Responsible Minerals Initiative (RMI) Responsible Minerals Assurance Process (RMAP), and the Initiative for Responsible Mining Assurance (IRMA).</p> <p>Both assessments are based on international standards, including the OECD due diligence guidance, and use appointed auditors. RMI's RMAP focuses more on the extent to which mineral smelters/refiners conform with the RMAP standards. IRMA, on the other hand, applies to all mined materials and assesses the performance of individual mines on business integrity, environmental standards and human rights, including human rights issues in ASMs.</p> <p>However, only 29% of companies were able to clearly articulate the audit methodology used. For the RMI/RMAP, only one company could describe the on-site audit process. For those companies using IRMA, a more detailed discussion is required.</p> <p>In our view, companies should be able to demonstrate a good understanding of external assessment methodologies and audit processes.</p>

Source: J.P. Morgan Asset Management.

What actions are companies taking to help prevent or mitigate cobalt human rights risks?

Active participation in the remediation of adverse human rights impacts is a key requirement of Principle 22 of the United Nations Guiding Principles on Business and Human Rights. As such, our engagement discussions included understanding the different methods that companies are using to prevent human rights abuses in the DRC.

The findings of our engagement reveal that companies use four main mitigation or remediation methods (**Table 2**). First, they can seek to avoid cobalt altogether. Second, they can seek to source cobalt directly from industrial mines. Third, they can seek to ban the use of artisanal cobalt. And fourth, they can seek to address human rights concerns through multi-stakeholder initiatives.

Table 2: Risk mitigation methods

	Findings and rationale	Benefits	Outstanding issues
1. Avoid cobalt and look to use alternative battery minerals	<p>21% of companies are looking to reduce their reliance on cobalt.</p> <p>One company, a battery maker, told us that it has been developing low-cobalt and cobalt-free battery technology in the light of ongoing and seemingly unresolvable human rights issues related to cobalt sourcing.</p> <p>The US Federal Consortium for Advanced Batteries published its National Blueprint for Lithium Batteries in 2021, calling for the elimination of critical minerals, such as cobalt and nickel, by 2030.¹²</p>	<ul style="list-style-type: none"> ✓ Reduces a company's association with the severe child labour and human rights risks in the DRC. 	<ul style="list-style-type: none"> ✗ Cobalt-light or cobalt-free batteries have less energy density. However, one company told us that these batteries should be sufficient for lower-end electric vehicles. ✗ Cobalt-free or low-cobalt batteries may require a greater contribution from other minerals, such as nickel, manganese and lithium, which may also present their own human rights risks. ✗ Alternative minerals may suffer supply constraints.
2. Direct cobalt sourcing from industrial mines	<p>One of the companies that we engaged with said it is investigating this option, while two other companies (both carmakers) have already communicated their long-term strategy to source cobalt directly from mines.</p> <p>Another company has announced its intention to avoid the DRC by sourcing cobalt from other countries, such as Australia.</p>	<ul style="list-style-type: none"> ✓ Reduces a company's association with child labour and human rights risks in the DRC. ✓ Can provide greater control over mineral supply chains. 	<ul style="list-style-type: none"> ✗ Although some downstream companies have entered into strategic partnerships with mining companies for cobalt, direct sourcing currently still does not represent 100% of their cobalt procurement, which means they may still have indirect exposure to cobalt from the DRC.

¹² "National Blueprint for Lithium Batteries 2021-2030", Executive Summary, Federal Consortium for Advanced Batteries (June 2021).

	Findings and rationale	Benefits	Outstanding issues
3. Ban artisanal cobalt	Over 20% of companies that we engaged with are seeking to ban artisanal cobalt from their sourcing, or ban cobalt from ASMs in general. This practice is commonly known as “de-risking”.	✓ Reduces a company's association with child labour and human rights risks in the DRC.	<ul style="list-style-type: none"> ✗ The feasibility of tracing all artisanal cobalt and separating ASM cobalt from LSM cobalt means that we are continuing to engage with companies who have stated that they have zero tolerance for child labour and/or have stated that they have banned artisanal cobalt. ✗ Avoiding ASMs in the supply chain reduces the chance of improving employment standards. With an estimated 200,000 artisanal miners in the DRC and over a million people indirectly employed through trade and transport, an outright ban on cobalt from ASMs could have a significant impact on local populations.
4. Provide human rights support to artisanal cobalt mining through multi-stakeholder initiatives	<p>Close to 64% of companies that we engaged with are involved in external industry initiatives related to cobalt sourcing.</p> <p>Some commonly referenced initiatives include the Responsible Minerals Initiative (RMI), the Global Business Alliance (GBA) and the Fair Cobalt Alliance (FCA).</p> <p>Some of these initiatives aim for the formalisation of ASM practices, such as implementing employment safeguards and safety standards to support artisanal miners in the DRC.</p>	✓ Proactively addresses the child labour and human rights risks of sourcing cobalt from the DRC.	<ul style="list-style-type: none"> ✗ Inadequate transparency on how much a company is contributing to multi-stakeholder initiatives. Only one company that we engaged with was able to articulate the contribution it has made to these external initiatives and link its human rights due diligence to its budget planning. ✗ Lack of transparency on the impact that these initiatives are having in the DRC. Only 29% of companies that we engaged with disclose the human rights support that they are providing through external initiatives.

Source: J.P. Morgan Asset Management.

While all of these methods offer particular benefits to companies in terms of risk reduction, none of the methods used are a panacea, and some could potentially make the situation worse. There are also areas where efforts to mitigate child labour and human rights risks require further investigation – specifically, where companies have stated zero tolerance for child labour, or have stated that they have banned the use of artisanal cobalt, given the lack of traceability in cobalt supply chains.

Conclusion

The complex issues raised by artisanal cobalt mining in the DRC represent significant financial and reputational challenges for companies and investors alike. On the positive side, most companies appear to be aware of the child labour and human rights issues in DRC cobalt mines and acknowledge the importance of responsible cobalt sourcing. Many companies make reference to the OECD due diligence framework and have implemented processes to manage responsible cobalt sourcing.

Nevertheless, when it comes to the assessment of these complex issues, there are several important areas where our engagement suggests downstream companies are falling short of emerging industry practice. The main issues include gaps in the disclosure of human rights risks, the failure to consult meaningfully with rights-holders as part of their due diligence process, the failure to understand the process used by external auditors to assess their mineral sourcing, and the inability to show clearly how their support for industry initiatives is contributing to progress on these issues (**Table 3**). The claim by some companies to be able to address human rights risks by tracing the source of cobalt to specific mines also requires further investigation.

Table 3: Industry practice where improvement is needed

Good industry practice	% companies achieving this (2023)
The company discloses salient human rights risks related to the sourcing of critical minerals, including cobalt.	14%
The company can demonstrate meaningful engagement with relevant rights-holders to identify and manage human rights risks.	29%
The company assesses the robustness of its human rights due diligence, such as understanding the audit process of any external responsible production programmes, and disclosure of the audit progress.	29%
The company can articulate its contribution to any external industry initiatives that address the systemic child labour and human rights issues in the cobalt artisanal mining sector.	29%

Source: J.P. Morgan Asset Management.

Furthermore, given that addressing cobalt and human rights issues is beyond the control of any single investor or company, investors may look to work to raise companies' awareness of these issues through multiple channels, including hosting conversations with external stakeholders and via events, such as investor panels and international forums.

Finally, while the human rights issues surrounding cobalt may be high profile, the sourcing of a range of minerals vital for the energy transition may also carry material financial risks. As such, it's important for investors to also build an understanding of the social and environmental impacts of other metals used in battery cells, such as lithium and nickel.

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